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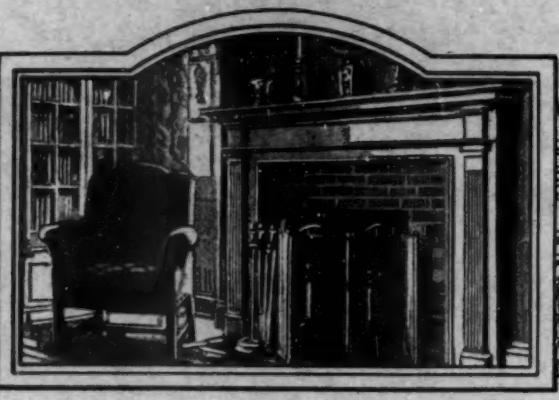

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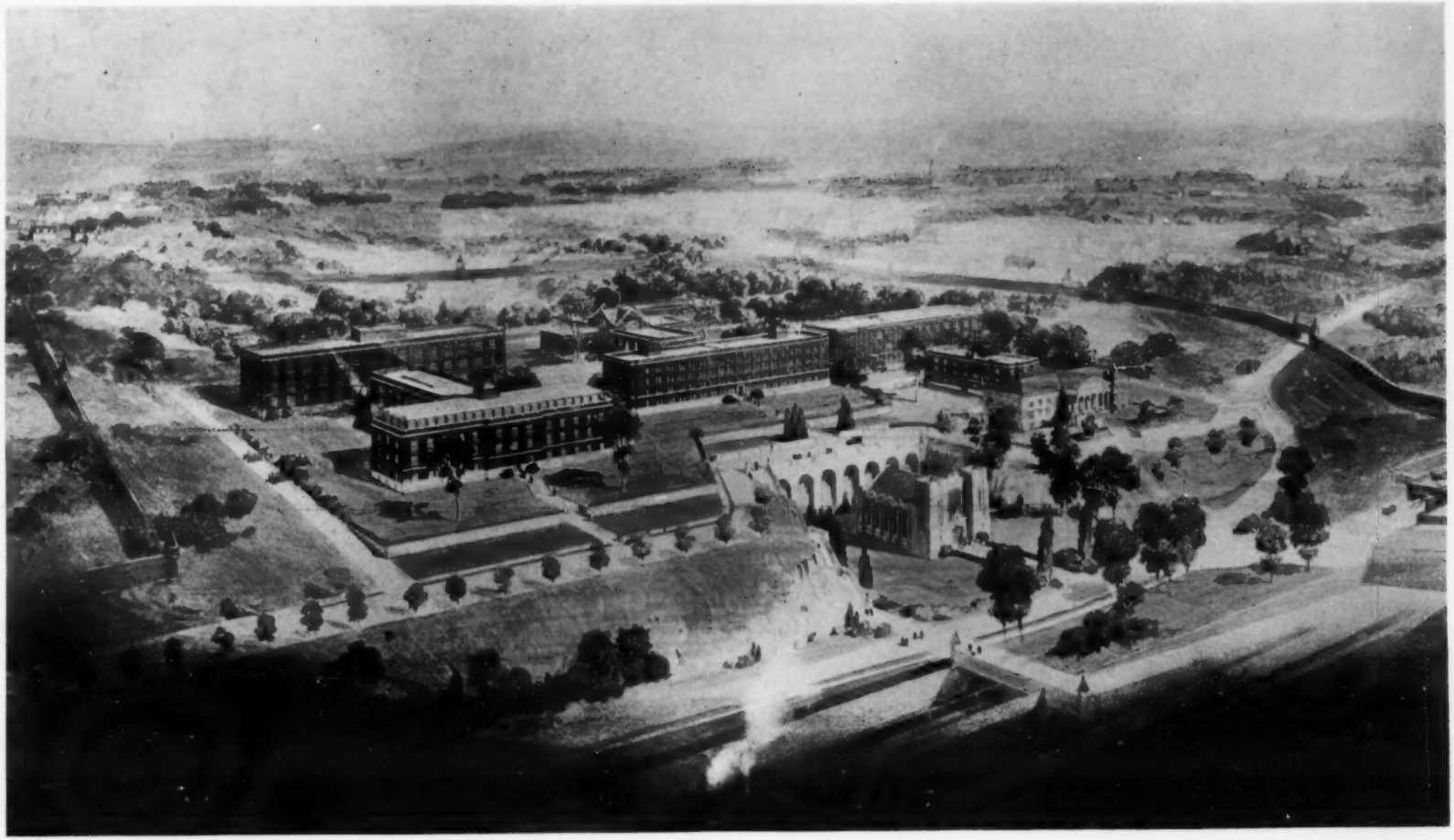

GENERAL VIEW, SING SING PRISON
LEWIS F. PILCHER, *NEW YORK STATE ARCHITECT*

THE AMERICAN ARCHITECT

VOL. CXVII WEDNESDAY, JANUARY 14, 1920 NUMBER 2299

The Department of Architecture

and the State Architect of the State of New York

By A. L. BROCKWAY, *F.A.I.A.*

THE Post-War Committee of the American Institute of Architects could have saved itself a good deal of speculation and at the same time have conserved a goodly amount of paper, if it had met at Albany, New York, early in its existence and had there examined and made itself familiar with the Department of Architecture and the State Architect, Lewis F. Pilcher, LL.D. It is, in fact, a most refreshing sight amid the reams of paper covered with suggestions as to what the architect could and should do as a professional man, to find that the State Architect of New York has been doing, not writing; has been accomplishing, not telling, the things that ought to be done.

The war showed us up as a profession in a way we all regret. Aside from the splendid list—all too short—of those who were given a chance in the housing work, in some of the cantonments, in camouflage work—the great mass of the profession found, when it came to trying to offer its services to our Government, that it was the engineer who was apparently wanted, and the architect had short shrift.

Personally, I think we have ourselves, in very large measure, to thank for this attitude. We failed to realize what the public expected of us, and we failed in making any effort to let the public know just what service we expected ourselves to render to them. This was true both before and during the war.

There had been, of course, local exceptions, such as certain publicity work at Milwaukee, at Minneapolis and in central New York State by the Central New York Chapter of the American Institute of Architects. Being familiar with and having assisted in this campaign in central New York, of trying by paid newspaper advertising and the accompanying unpaid news and editorial comment furnished by the papers themselves, to give to the public a clear presentation of what the professional service of an architect really was, and noting the effect which this advertising had in our own community, and, in fact, in other and distant communities, we felt impelled to submit it to the annual convention of the Institute. This was done at Washington, I think, in 1916. Some of it was published by the *Architectural Review* in November, 1916. I have never heard a criticism as to the character of the professional service which was there outlined as being what the architect should render to his client. The convention gave it a deaf ear, on the ground that the definition was ideal, but that architects were not, like a certain brand of soap, 99 44/100 per cent pure and, to quote another well-known New York City architect: "I thought we were a body of professional men." Had the Institute been able at that time to see itself as the Public saw it, and had it undertaken to put itself in harmony with the perfectly evident trend of great economic and sociological forces, it would not now be picking itself up after a knock-down blow and be looking around more or less dazedly and wondering what had happened. Now that the horse is stolen, we lock the barn door. And so the Post-War Committee puts our profession on the witness stand to testify in its own behalf.

Now the fact is that beyond all question there were here and there large numbers of individual architects who were doing exactly what this publicity outlined. They are doing so to-day. Their deeds and their work were bearing witness to what constituted the professional service of the architect. But the results of these individual efforts lacked the force and strength of united effort. Like

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a beacon light in this mist of professional endeavor stood the work of the State Architect of New York and has continued to this day on and along exactly the lines that were presented to the public in this advertising done by the Central New York Chapter.

Knowing this department and its head intimately as I have since its reorganization in 1913, I feel it a moral obligation to see that the work done there is presented to the profession. The Institute members in New York State, aside from the Central New York Chapter, have taken very little interest in its work, and it is time they began to realize the service which has been rendered to our profession. This service results from the fact that Mr. Pilcher has kept always before him an ideal of citizenship and professional service whose sole object was responsibility and duty to the State. His official acts have demonstrated the proposition of professional service not only as outlined in the publicity campaign mentioned, but in many other ways. And think of his problem. Appointed by Governor Sulzer (D); reappointed by Governor Glynn (D); reappointed by Governor Whitman (R); and just now again reappointed by Governor Smith (D). New York State is his client, consisting of well over one hundred individual commissions, boards, committees, heads of departments, etc., many of them with shifting personnels. The work covers hospitals, charitable institutions, prisons, armories, normal schools, educational, public buildings, regulative and general. There is a State Hospital Commission and fourteen State Hospitals for the Insane. There is a State Board of Charities and seventeen institutions for the feeble-minded. Each of these has its own local board of managers and its superintendent. Then there is the Prison Commission and the Superintendent of Prisons. Also the Hospital Development Commission and the Commission on New Prisons, of both of which the State Architect was made a member. There are also the Trustees of Public Buildings, namely, the Governor, Lieut.-Governor and the Speaker of the Assembly, who have charge of the Capitol at Albany and all public buildings owned by the State in Albany, or rented for various departments. The largest part of the work of the Trustees of Public Buildings is dependent entirely upon the State Architect, and he is relied upon absolutely for its successful prosecution. In the preparation of the State's Budget of appropriations for building construction of every character, which work is done by legislative committees and by the Governor, the State Architect is relied upon absolutely. That is so because the quality of professional service he has rendered has been so sane, so carefully prepared upon scientific, economic, utilitarian and aesthetic grounds that the men upon whom rests the responsibility of government know by experience that his judgment is to be relied upon and is their safeguard. That work is preliminary to legislation and appropriation. Out of a prison condition in this State which was a scandal and a disgrace the Commission on New Prisons has developed a program of prison construction and management based upon the most advanced scientific and sociologic knowledge and data available. Here the prison inmate is subjected to the most exhaustive observation and study, almost a laboratory process, in order to determine whether his criminal acts are due to disease, subnormality which may be corrected, or to criminal characteristics inherited or due to environment. Sing Sing is being rebuilt as a great receiving, scientifically equipped institution, where classification will take place. This may be a matter of months; but before the prisoner is finally located where he belongs, every means will be exhausted for his reclamation. The architecture of this institution and of Wingdale, also under way, is noteworthy for its psychological effect upon the prisoner and both institutions form architectural groups of imposing merit in composition and design.

The same general statement can be made of the Hospital Development Commission. In the development of both of the programs, Mr. Pilcher has been a close student and enthusiastic co-operator with public-spirited men, the scientific man, the sociologist, the physician, and has enabled them to accomplish in practical buildings all of their ideas and at the same time to help and guide these efforts. He has placed the architect in exactly the place of importance and necessity that we professional men know he should have, and he has convinced the layman, both public official and private individual, of that fact, so that they have the highest respect and regard for the architect. In fact—and this I can supplement by knowledge which I have and which I cannot now make public—I believe he has done more to advance the position of architecture as one of the fine arts and as a profession than our American Institute of Architects has done in recent years.

Therefore, I will submit in evidence as "Exhibit A," the Department of Architecture at Albany and the State Architect. I have no fear of not winning my case. Some later articles will go exhaustively into the details of organization of the department, showing the machinery in full operation and working under high pressure as it has been

for the last five or six years. In this introductory paper I have confined myself mostly to the larger aspects of the work of the department and of the personality of the State Architect himself, who is responsible for the present organization and its effective work. From what I have written, one can appreciate why the Department of Architecture occupies a unique position in the big organization of departments, commissions, legislative committees, trustees and individuals which make up the Governmental machinery of this State. At present writing work under contract and in preparation amounts to sixteen million dollars. Mr. Pilcher, by his strong personality, his high ideal of professional service, his proven strong executive ability, his high quality of technical education and preparation, has rendered service of such high quality that he has created *a deep-seated respect for architecture and the advice and counsel of an architect* in the minds of the men making up all these different Governmental agencies. The profession of architecture through his work enjoys a standing with the Government of New York State which is in strong contrast with that of the Supervising Architect's Office or even of the profession itself with the Federal Government.

The Public's Faith in the Architect

His Integrity Never a Matter of Debate

IT has been said that the architect is trusted to a greater extent than the physician is trusted—because the former is trusted with the expenditure of large sums of money. This spending is seldom or never questioned by the client, says *Building Review*. Continuing, it adds:

However this may be, the point is that architects enjoy the highest confidence of the public, when it concerns the decisions regulating expenditures or selection of materials or specialties that are to go into a structure. The architect's integrity is seldom or never a matter of debate. He is taken at his own valuation, as that of an absolutely disinterested party whenever the money part of a building is concerned. The only question that may ever have been raised against him was that in some of his designs he has aimed to create prestige and glory for himself rather than to produce a building best suited to the owner's needs.

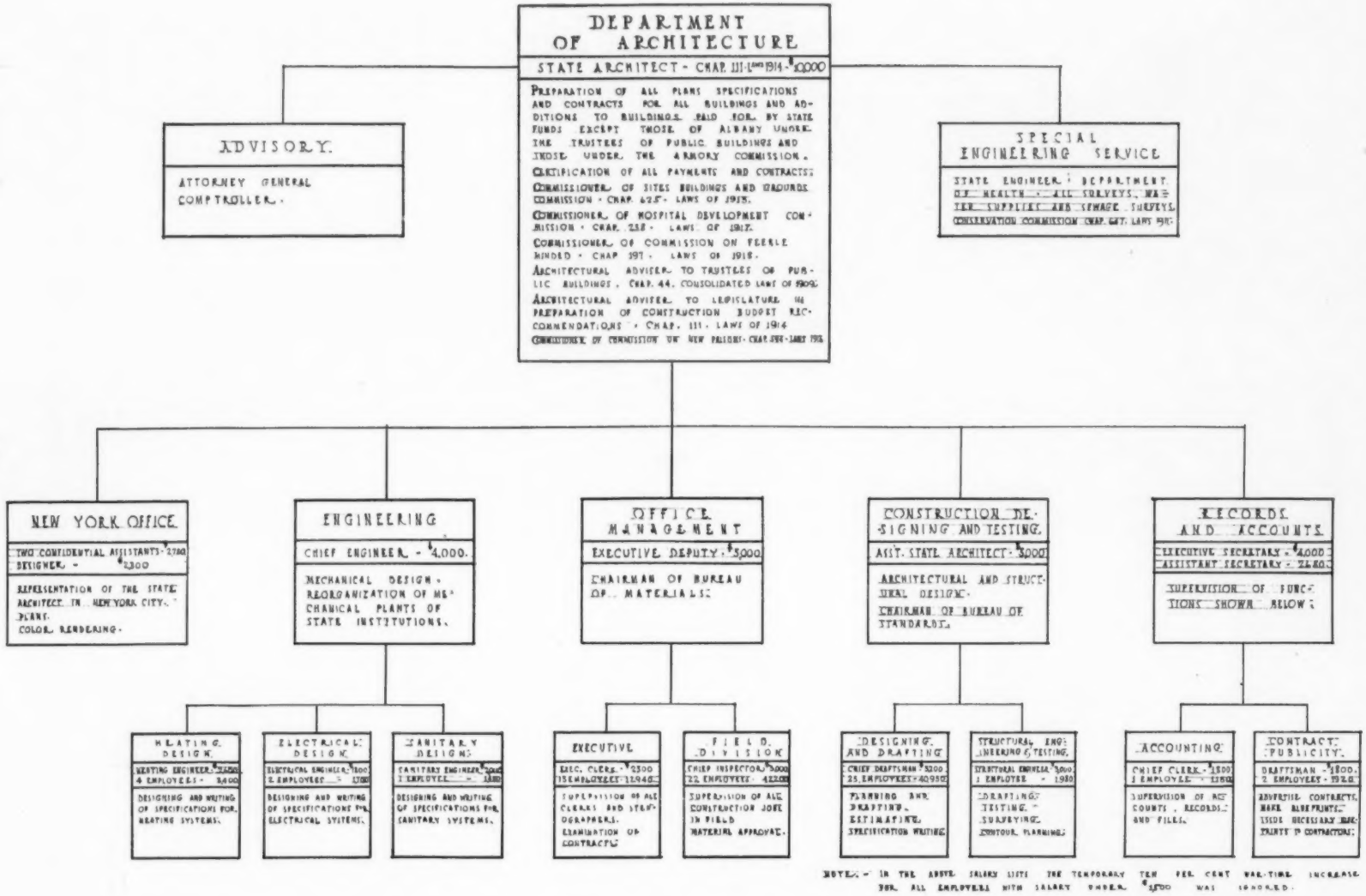
But as to his say-so regarding just what was to go into the work, or the amounts to be spent, his word is taken to be final, and his approval is acquiesced in with little or no questioning as to his motives. He is not suspected of having ulterior or mercenary motives guiding him in the selection or naming of certain materials or equipment.

The high standing, well earned by the architectural profession by its past acts and proved and tested by long years, is a precious asset that must not be lightly ignored. In anything that is done by the profession in the future to further adjust itself to world changes and conditions, its integrity as a just arbiter between interested parties, its honor built upon disregard for selfish profit from the operations which it supervises, must be maintained.

It is the bedrock upon which the foundations of the whole architectural professional structure rests. No profession, no organization, can desire a finer basis upon which to establish itself. And such a basis cannot be acquired overnight. Taints cannot be eradicated in one generation. Reputations for character such as are enjoyed by architects are the cumulative products of generations of honorable acts on the part of the architects themselves.

All honor to those of the past who helped sustain this high integrity! The profession to-day, in the swirl of world changes, is beset on every side by temptations to do as others seem to be doing. Its traditional slowness, its traditional unwillingness to depart from custom, mayhap, is the reason for the profession's proceeding so cautiously along the road to-day, to find its way out under the new set of world conditions which it is facing.

The unique glory of the architect rests not alone in his practical work for humanity, the betterment of living conditions and surroundings, in the creation of objects of beauty which further lead to the higher inspiration of the rest of his fellow-men, and which lead, too, to an encouragement of men to continue their efforts toward higher things. The architect's glory is due in part to these things, but, after all, his highest honor is that which is awarded him universally—in America at least—of that of being an honest man, incorruptible.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CERTIFICATION OF ALL PAYMENTS AND CONTRACTS;
COMMISSIONER OF SITES BUILDINGS AND GROUNDS COMMISSION - CHAP. 625 - LAWS OF 1913.
COMMISSIONER OF HOSPITAL DEVELOPMENT COMMISSION - CHAP. 258 - LAWS OF 1917.
COMMISSIONER OF COMMISSION ON FEEBLE MINDED - CHAP 197 - LAWS OF 1918.
ARCHITECTURAL ADVISER TO TRUSTEES OF PUBLIC BUILDINGS, CHAP. 44, CONSOLIDATED LAWS OF 1909.
ARCHITECTURAL ADVISER TO LEGISLATURE IN PREPARATION OF CONSTRUCTION BUDGET RECOMMENDATIONS - CHAP. 111 - LAWS OF 1914
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ASST. STATE ARCHITECT - $5000
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RECORDS AND ACCOUNTS
EXECUTIVE SECRETARY - $4000
ASSISTANT SECRETARY - $2400
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HEATING DESIGN.
HEATING ENGINEER - $3500
4 EMPLOYEES - $4400
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ELECTRICAL DESIGN.
ELECTRICAL ENGINEER - $3000
2 EMPLOYEES - $1500
DESIGNING AND WRITING OF SPECIFICATIONS FOR ELECTRICAL SYSTEMS.
SANITARY DESIGN.
SANITARY ENGINEER - $2400
1 EMPLOYEE - $1200
DESIGNING AND WRITING OF SPECIFICATIONS FOR SANITARY SYSTEMS.
EXECUTIVE
EXEC. CLERK - $2500
15 EMPLOYEES - $12960
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EXAMINATION OF CONTRACTS
FIELD DIVISION
CHIEF INSPECTOR $3000
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SUPERVISION OF ALL CONSTRUCTION JOBS IN FIELD
MATERIAL APPROVAL.
DESIGNING AND DRAFTING
CHIEF DRAFTSMAN $3200
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ESTIMATING.
SPECIFICATION WRITING.
STRUCTURAL ENGINEERING & TESTING.
STRUCTURAL ENGINEER $3000
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TESTING.
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CONTOUR PLANNING.
ACCOUNTING.
CHIEF CLERK - $1500
3 EMPLOYEES - $3900
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DRAFTSMAN - $1800
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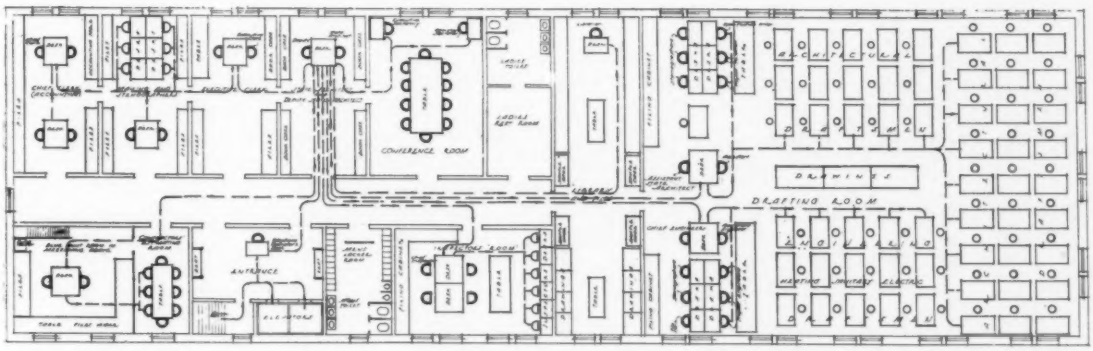
ORGANIZATION PLAN, DEPARTMENT OF ARCHITECTURE, STATE OF NEW YORK

LEWIS F. PILCHER, *NEW YORK STATE ARCHITECT*

Uniform Business Organization of Public Architectural Departments

THE educational value of architecture in the construction of public buildings and the consequent care and improvement of dependents is of an importance equal to any existing in professional or scientific fields. The layout of an institution and grouping of its buildings, the design and arrangement of each building to co-operate in every way with scientific classification requirements, together with an harmonious and simple beauty that helps to eliminate from the minds of inmates the fact that they are patients, would make of an architect an assistant physician in the reclamation of the State's dependents.



INTERCOMMUNICATION MAP, DEPARTMENT OF ARCHITECTURE, STATE OF NEW YORK
LEWIS F. PILCHER, *NEW YORK STATE ARCHITECT*

One of the first steps toward this end is the organization in every State of a Department of Architecture having absolute jurisdiction over all State construction, and following, so far as possible, a scheme for the complete development of the needs and resources not only of the State in its entirety, but, in co-operating with other States, to develop the resources of the entire country that the best results may obtain.

The first essential of such a department is an efficient business organization, which because of the artistic temperamental equation has been somewhat lacking in the past in the architectural profession. Following is a short résumé of such an organization, which has proven its high grade of efficiency in the State of New York:

The department is divided into six bureaus:

The Administrative
Executive
Design
Engineering
Construction and Inspection
Blue Print and Plan File

All information and data of whatever kind passes through the Executive Bureau, and, after a complete record is made of its receipt and contents, together with its ultimate destination, goes into the Administrative Bureau, which consists of the State Architect and his Executive Deputy, and from there is distributed to the various bureaus for attention.

The work of the Executive Bureau includes all recording of data, checking of appropriations and accounts, tabulation of bids, preparation and following up of execution of contracts and bonds, purchase of supplies, accounting, clerical and stenographic work, filing, outgoing mail and general messenger service—in general, all the executive clerical work necessary for the administration of the department.

To the bureau of design are referred all requests for appropriations for the preparation of preliminary construction sketches and estimates upon which the amounts of appropriations requested in the budget are based; all requests for plans and specifications after appropriations have been granted; the checking of construction bids received, with preliminary estimates made; the preparation and estimating of all plans and specifications for work

done under the Special Fund Estimate system; the preparation of working drawings after award of contract, and the checking and estimating of all changes, additions or omissions necessary in their final analysis.

The head of this bureau is a deputy designated as the Assistant State Architect, who has as his assistants a Chief of Institutional Design, and a Chief Draftsman, who, in their turn, each have under their immediate supervision a corps of designers and draftsmen, structural engineers, specification writers and tracers; the draftsmen and designers being divided into five groups—the Hospitals for Insane, Charitable Institutions, Prisons, Education and Miscellaneous, each group being under the immediate direction of an assistant directly responsible to the Assistant State Architect.

To the Engineering Bureau are referred all requests for appropriations pertaining to heating, lighting and plumbing and all engineering work in connection with power plants, water supply and sewage disposal plants, for preliminary sketches and estimates upon which the final amounts appropriated in the budget are based; all requests for plans and specifications, after appropriations have been granted; the checking of engineering bids received with the preliminary estimates made; the preparation and estimating of all plans and specifications for engineering work done under the Special Fund Estimate system; the preparation of working drawings after contract is awarded, and the checking and estimating of all changes, additions or omissions necessary in their final analysis.

The head of this bureau is a deputy designated as Chief Engineer and has as his first assistant an assistant Chief, who has general supervision of the mechanical draftsmen and special charge of the heating and ventilating engineering group; the two other groups being the sanitary and electrical divisions, each in direct charge of an engineer working under the supervision of the Chief Engineer and his first assistant.

In connection with the Bureau of Design and Bureau of Engineering is a special library of Architectural and Mechanical books and magazines for ready reference and reading. Study in all architectural and engineering lines, outside of regular office hours, is encouraged, and any employees interested are at all times given personal attention and help by the Bureau Chief. The Assistant State Architect, a Beaux Arts graduate, established an Atelier and acted as its patron several years previous to the outbreak of the war. When he left for service abroad, several of the men in attendance at the Atelier had passed examinations qualifying them to carry on the work. This gives the young men of the department an opportunity for study, which, coupled with their daily employment giving them the further opportunity of immediately practically applying the results of their study, qualifies them not only for rapid advancement in their chosen profession, but greatly increases the efficiency of the bureau and grade of workmanship performed.

To the bureau of inspection are referred all matters in connection with work after contracts have been awarded. This bureau is in charge of a Chief Inspector, who has as his assistants a corps of Superintendents of Construction, Engineers and Engineering Inspectors, who are located in different parts of the State, traveling about among a small segregated group of the Institutions, supervising and inspecting contracts as they progress; or, in cases of many or large contracts at any one institution, being temporarily assigned to that particular institution. All requests for payments made by contractors are checked and approved by these local superintendents and engineering inspectors, before being finally checked and passed by the Chief Inspector.

The Blue Print and Plan File Bureau serves the needs and demands of all the Bureaus in the department. The electric blue printing machine, with washers and drying equipment, has a capacity of about six thousand feet of blue printing per day.

The original tracings of all projects are placed in long metal tubes for final filing, thus preserving them for future reference.

This Bureau is in charge of a Chief Blue Printer who has as his assistants an expert blue printer and photographer and two Junior Clerks.

Two secretaries complete the personnel of the Department, the work of each being under the direct supervision of the Administrative Bureau.

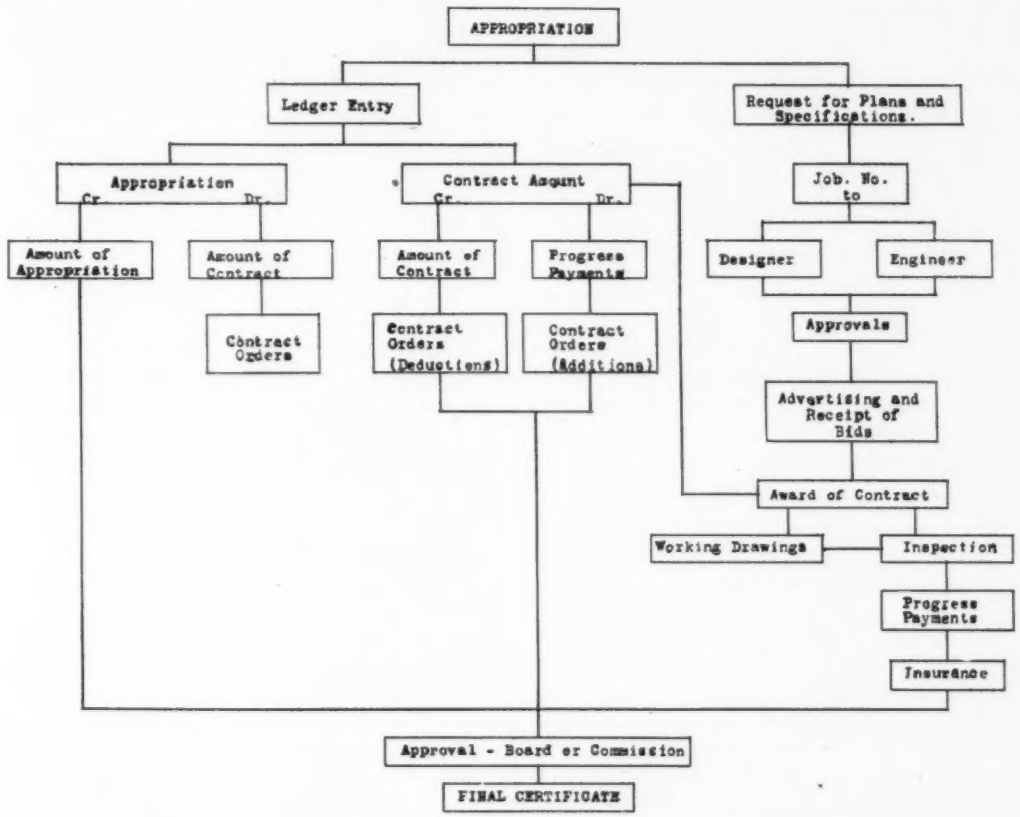
A branch office has been established in New York City to provide for better facilities in handling work at institutions in the Metropolitan district, centralizing the administrative force nearer the field of operation, and so enabling the State Architect to keep in closer personal touch with these large projects. The permanent personnel of this branch office consists of two Confidential Assistants with such other assignments as are from time to time deemed necessary.

A résumé of the above will show that all work handled by the department passes through the Administrative Bureau, is from there distributed to the various bureaus and by the bureau heads to their various subdivisions for attention, passing back to the Administrative Bureau through the same channels and there finally checked by the State Architect or his Executive Deputy, before being sent out of the department. This subordination of one

part to another and the orderly intercommunication of the various bureaus is a salutary restraint on the development of the unessential and tends to eliminate all duplication of work or effort.

Such an orderly and efficient organization, guided by the keen mind, broad sympathies and true artistic perception of the man at its head, cannot but result in an architectural production worthy of the most careful study and emulation.

ment of the so-called artistic side of the profession, has been very slow in recognizing and meeting these conditions. THE AMERICAN ARCHITECT, through knowledge gained by a personal inspection of the New York State Department, has been much impressed with its organization, which seems to have combined to a remarkably harmonious degree the practical, scientific and artistic sides of the profession, crystallizing all its possibilities for the high-



PROGRESS CHART, DEPARTMENT OF ARCHITECTURE, STATE OF NEW YORK
LEWIS F. PILCHER, *NEW YORK STATE ARCHITECT*

The world, in its course, has reached a period of such large problems and undertakings, modern science has so welded together its most remote corners that an entire readjustment of values must be made, and no problem should be considered without giving full value to its effect upon the world at large. This fact has been felt and largely discounted in the industrial and commercial world, but the architectural profession, because of its heretofore peculiar lack of close relationship to the practical activities of life on account of an over-develop-

est type of service into a tangible working organization. Uniformity, harmony, education, utility, economy and scientific co-ordination, in equal parts, should be the ingredients put into every project undertaken by an architect on public buildings, and this can only be accomplished through a co-operation which must be obtained by the establishment of uniform architectural departments in all States, and the fundamentals of the organization of such departments might well be based upon the present organization of the New York State Department.

State Departments of Architecture

Their Correct Organization and Efficient Functioning a Logical Solution of Many National Architectural Problems

IT has become more and more recognized in the architectural profession, and, it might be added, all professions that aim toward the creation of physical beauty, that one of the essentials to such beauty is harmonious uniformity. Such recognition, in architecture, has resulted in efforts at "Standardization." Certain buildings have been standardized, and from their architecture their purpose is easily recognized, such as armories, schools, churches; or, we recognize a certain type of architecture, and wherever or whenever seen, that type is associated with the period and country in which it originated. While European countries have recognized the value of standardization, within certain limits, our own Government has been too busy furnishing buildings to keep pace with its phenomenal growth in business and population, to stop and survey its work, or take the necessary time to lay out a comprehensive scheme of uniform standardization.

Owing to the vast areas covered, the great difference in climatic and topographic conditions, it is manifestly impossible to standardize, under one plan, the public architecture of the entire country. It would seem, however, not only possible, but most desirable, that uniform localities or regional districts be standardized, meeting in each section the peculiar requirements of that region.

The Federal Government at present, while recognizing but one Supervising Architect, has many architectural bureaus, each making its own plans and building its own buildings, regardless of the projects of any other bureau. This has resulted in a heterogeneous mass of Government buildings throughout the country, each embodying the ideas and conceptions of its special architect, but totally disregarding the architecture of any other buildings in the vicinity, or buildings in other parts of the country used for the same purpose. This has also been true, to some extent, in both State and Municipal architecture.

The large majority of States in the Union have a State Architect, or Department of Architecture, for the designing and construction of State institutions or improvements. In many States these Departments are comparatively new and therefore in their infancy of organization. Some States, particularly New York State, have gone far toward standardizing plans and specifications for the various types of construction. As the Federal buildings are located within the various States, and must necessarily form a part of the architecture of that State, would it not be feasible, instead of the numerous bureaus now existing in the Federal Government that the one now recognized Supervising Architect have for his advisory board the State Architects of every State in the Union, each State Architect to survey and advise upon the designs of the Federal buildings to be erected in his particular State; the same co-operation of survey and advice to exist between the State Department and Municipalities?

This would result in both Federal and Municipal architecture conforming to an harmonious degree to the standards established for each particular State or regional district. If then the various States would, through the forming of a National Society, in conventional consultations plan their methods and principal features of standardization, uniformity would result, not only pleasing to the eye but of the highest economical efficiency. How many architects make a special point of the use of native material in construction work in each particular locality or region? How many, in designing buildings, take into consideration the atmosphere of the locality as well as climatic and topographic conditions? The forefathers of our country of necessity made use of only native materials, and while the structures are crude, their durability and utility are unquestioned, and, because of their peculiar fitness for the purposes for which they were built, they were artistic in the truest sense.

The economic and artistic uses of such materials have been recognized throughout Europe, with a resultant harmonious beauty, making the buildings seem a very part of their environment. while at the same time reducing their cost by a large percentage, and the peasant's cottage is as beautiful and appropriate in its setting as the artistic and expensive villa with its wonderful treasures of art and sculpture.

But in England, or any other of the European countries, the areas to be considered are very limited compared with the extent of our own country, and the problems confronted here can only be solved by the highest type of co-operation between the Federal and Municipal Governments, with the State Departments.

The Department of Architecture of the State of

New York has solved, to a large degree, many of these problems. Its origin in 1883 was the appointment, by the Governor, of a Capitol Commissioner, principally to complete the construction of the present Capitol. This Capitol Commissioner continued in office as State Architect by Chapter 566, Laws 1899. Previous to the appointment of the first State Architect, and for some years after, the majority of buildings at the State Institutions were designed by architects employed sometimes for a particular building only, sometimes for the partial development of an institution, while all the buildings of large magnitude were designed through competition, the State Architect functioning in a supervisory and auditing capacity only, after the contracts were awarded. This practice left little opportunity for the State Architect to develop his own ideas or obtain any uniformity of construction through a general plan of development. This method has gradually been eliminated and the present Department of Architecture was established by Chapter III of the Laws of 1914. This has gradually grown into a Department whose wide scope and splendid efficiency is beginning to be recognized throughout the United States and Canada. Within the past year one of its designs was sent to South America, through Dr. McCoy of the Hygienic Laboratory at Washington, D. C., at the request of the Bolivian Government, while but recently it was visited by a Commission from Japan upon its representation as one of the most efficiently organized Architectural Departments in the country.

Inheriting, as it must, a collection of buildings at the various institutions built with no comprehensive scheme for the complete development of any one of the institutions, and with but few of these buildings designed by the same architect, it has been a most difficult problem gradually to evolve an harmonious continuity and uniformity that would at the same time comply with the needs and demands of modern science and research. Architecture has, in the past, been considered an art. In these modern days it is not only necessary for an architect to be an artist, but in order to be successful in public work, his designs must combine art, science, education, humanitarianism, economy, business and utility. This composite ability is rarely found in one man, but when such a man is found, he should be given the greatest possible freedom, as well as co-operation, in the carrying out of his ideas.

Into the administration of any public office will always enter a certain element of political exigencies. In all purely professional or technical departments this should be eliminated if the best results are to be obtained. A truly professional or technical man is never a politician. The characteristics and temperament necessary for the making of a good politician are entirely at variance with the qualifications necessary for the highest type of professional man. The often unfair criticisms that are leveled at politics and politicians in general have tended to keep out of public office many men of absolute integrity and high professional ability. It has therefore, in the past, been necessary in many instances to be content with men of mediocre ability as the heads of public professional and technical departments. Our country, our States, our cities need men of the highest type at the head of the various departments, and every possible inducement should be offered them to accept such appointments. It is only through men who are big enough to give absolutely altruistic service that order and harmony can hope to be created out of the present architectural chaos.

The efforts of the Department of Architecture of the State of New York, toward an humanitarian cure rather than a permanent punishment or incarceration, have resulted in a scientific classification in the layout of institutions and the construction of their buildings that will be a long step toward the solving of problems in connection with all humanity coming within the scope of correctional, curative or educational institutions. The one great aim of the department has been so to correlate the construction at all institutions that their work may be carried on in co-operation with all other institutions throughout the State. This can only be accomplished by the gradual working out and adoption of a comprehensive plan encompassing through scientific classification the resultant humanitarian benefits, and this plan should be strictly adhered to during the years necessarily required for its accomplishment in spite of changing politics. Such a plan necessitates, of course, the co-operation of the best scientists, physicians, surgeons, penologists, etc., together with a large amount of good, hard, common, business sense.

The administrative policy of the New York State Department has been gradually to clear away the more or less worthless accumulation of past generations, and evolve out of a conglomerate chaos a comprehensive plan so correlating the whole that the best results might be obtained in the most economical manner. To this end a thorough survey of each institution has been made so that upon a request for a new improvement, the department might not only be able to furnish the institution with an intelligent preliminary sketch and estimate covering its requirements, but could also advise as to the desirability of the improvement requested. Requests by institutional heads are usually made with a view to the development of that particular institution, whereas the best result can only be obtained by developing each

institution with a full knowledge of its relation to all other institutions of the State, and so correlating its growth and improvement as best to serve a complete plan for the care of all needy humanity in that State.

The Hospital Development Commission, created by Chapter 238 of the Laws of 1917, drew into the field of operation men of the highest professional type, and the State Architect, as a member of that Commission, and through his work with the Commission on New Prisons of the State of New York, the National Prison Association, The American Prison Association, The National Commission on Prisons and Prison Industries, the National Committee on Mental Hygiene, the State Charities Aid Society, the American Academy of Medicine, the American Institute of Architects, the Heating and Ventilating Engineering Society, The Illuminating Engineering Society, and the National Guard of the State of New York, which placed its Generals at his disposal for advice and counsel, has commanded the advice and co-operation of the best professional men in the country. The plans are formulated, and if the opportunity for their complete accomplishment is guaranteed, will be as far-reaching as the end of all suffering humanity.

In order competently to carry out plans of such wide scope and magnitude it is absolutely necessary to have an executive and business organization of the highest efficiency. The New York State Department of Architecture has attained this efficiency to a remarkable degree and a brief outline of its method of functioning is given below:

When an institution, or its representative in the form of a Commission or Board, decides upon the necessity of an improvement, its requirements are transmitted to the Department of Architecture, with a request for a preliminary survey and sketch, upon which an estimate of the amount necessary for the desired project is based. This sketch and estimate is an assurance to the Budget Committees and the Legislature that the improvement desired can, under normal conditions, be accomplished within the amount requested, thus reducing the disadvantage of having money appropriated lying idle because it is not sufficient for the purpose for which appropriated.

The preliminary sketch and an approximate estimate made by the Department are returned to the institution or its representative and by them included in their requests to the Legislature. These requests are checked and analyzed by the Department of Architecture, preliminary to the hearings held by the Executive and Legislative Budget Committees in co-operation with the Department of Architecture prior to the final development of the Budget Bill for submission to the Legislature.

The appropriation being granted, preliminary plans and specifications are prepared. After the plans and specifications have been approved by the various Boards, Commissions or other State representatives having jurisdiction, the work is publicly advertised and, upon their request, plans and specifications sent to contractors for bidding. Fifty copies of specifications are always printed, thirty-five bound for immediate use, the remainder held in reserve. In large projects one hundred specifications are printed, fifty bound for immediate use. The average number of plans and specifications sent out for bidding for each of the four branches of a construction contract, involving the expenditure of about one hundred thousand dollars, is between thirty and thirty-five. This involves approximately nine thousand feet of blue printing before bids are received.

Bids are received by the Board or Commission representing the State. They are then sent to the Department of Architecture for tabulation, checking and recommendation as to the fairness of the bid in comparison with the estimate made by the Department. Upon the receipt of a resolution from the Board or Commission awarding such contracts, the Comptroller's copy of contract covering each branch of the work is prepared and sent to the Comptroller for checking and approval as to funds available for the purpose. Upon the receipt of such approval, an official Notice of Award, authorizing the contractor to begin work, is issued by the Department of Architecture, and contracts and bonds prepared for final execution.

Bonds in the sum of 50 per cent of the amount of contracts are required covering State work. In the past, the failure of the State to require a bond with a performance clause, and strictly to enforce same, allowed contractors of mediocre ability and questionable reputation to figure on State work and often obtain contracts. However, the form now in use and established by the present Department of Architecture guarantees the strict performance of all work by the bonding company in case of default of the contractor and this has eliminated from State work all but reliable contractors, the requirements of the bonding companies making it possible for only contractors of good repute to qualify. The work performed under these conditions is, therefore, of the best quality obtainable, the contractors, like all good workmen, taking a personal pride and interest in carrying out, to the best of their ability, the State Architect's desires as expressed by the plans and specifications, which co-operation naturally results in a building of the highest type.

A copy of the Official Notice of Award of Contract is sent to the various bureaus of the Depart-

ment, which is their authority to begin the work of supervision and a Superintendent of Construction is detailed to cover the work. A detailed estimate is required from the contractor, showing the proportion of his bid on the various items of work involved. This estimate is used as a basis for granting payments as the work progresses. The Superintendent of Construction is supplied with a copy of the contract and bond, containing a copy of specifications, detailed plans and working drawings, detailed estimate and copies of all letters, instructions or transactions of any kind between the State and the Contractor. Deviations from the specifications, whether involving additions or deductions, are submitted to the Board or Commission representing the State, checked by the Department of Architecture as to their structural value, and a written order, designated as an "Order on Contract" issued covering same. This order clearly defines the deviation made from the specification, and a copy of same is sent to the State Comptroller, the Board or Commission representing the State, the Contractor, the Superintendent of Construction in charge of the work, the Inspection Bureau of the Department, and one copy attached to the Department's executed copy of the contract. Applications for payments are made on blanks furnished by the Department and contain an affidavit of the contractor as well as an affidavit by the local Superintendent of Construction that the payment requested is just and due the contractor according to contract provisions covering payments. These applications are checked by the Chief Inspector and certificates of payment prepared in the accounting bureau. Monthly payments of 85 per cent of work or materials incorporated in the building are provided for in contracts. When the work is reported completed by the contractor, and application for final payment made, a special inspection is made by the Chief Inspector, or in engineering work by the Chief Engineer. The application is then submitted to the Commission or Board representing the State, for their approval and statement as to any loss or damage suffered by the State because of violations or delays by the contractor. Upon the affidavit of the Chief Inspector that the work has been properly completed, and a resolution from the Board or Commission representing the State approving same, final certificate is issued and sent to the Comptroller for payment.

Contractors are required to file policies of fire insurance covering all payments on work, excluding underground work and excavations, foundations, etc., up to the first floor tier beams. These policies are retained by the Department of Architecture until final certificate is issued or the building is occupied by the State.

The Comptroller being the financial agent of the State, certificates are sent to him for payment and check sent by him direct to the contractor.

The clerical work involved in each transaction of this kind is, of course, enormous. In connection with the preparation of working details, additional blue printing of approximately seven thousand feet is required for each contract, making the total amount of blue printing necessary for each project as described above approximately sixteen thousand feet. Nine copies of contracts and bonds are prepared for each branch of the work, making necessary the preparation of seventy-two original forms in connection with the award of each construction contract. It is necessary to prepare eight copies of each certificate or contract order issued to file for reference and accounting purposes with the various Boards, Commissions and Department Bureaus interested. One hundred and sixty-six contracts were issued by the Department during the first ten months of the present year, aggregating approximately $7,000,000, while plans and specifications for an additional $9,000,000 are in course of preparation. During the month of June the Blue Print and Plan File Bureau averaged eight thousand feet of blue printing a day, at an expense of $1,200 for blue print paper during that month.

The incoming mail, averaging upward of two hundred letters a day, is opened and read by an assistant in general charge of the clerical and administrative force of the Department, stamped received, numbered consecutively and referred to the various bureau heads having jurisdiction over the subject-matter of the letter. Before being distributed to these various bureau heads all mail of every kind is recorded in a letter record book showing the consecutive number of the letter, institution, from whom the letter is received, a short synopsis of its contents and to whom referred. This record enables the department at all times readily to trace all mail received.

Separate files are kept for each institution, commission or special project, together with a letter press book covering same. This requires separate letters covering work at each institution, both incoming and outgoing. All outgoing mail, whether letters, reports or blue prints, is sent to the private office for signature by the State Architect or his authorized deputy. A letter press copy of all letters and reports is made while a carbon copy of the letter is attached to the one answered, for filing.

A "follow up" system has been instituted, under which all queries not finally disposed of are placed in a separate file, with a small card index on the desk of each Bureau head, for ready reference.

An account is kept covering each contract, show-

ing the money appropriated, the amount mortgaged for each branch of the work contracted for, all contract orders issued, and all certificates issued. This account is closed when final certificate is issued, and any small remaining balance lapses by law. Should a balance be re-appropriated for another purpose, a new account is opened.

When a project is undertaken by an Institution, to be done wholly or in part by inmate labor, plans and specifications are prepared by the Department of Architecture the same as though the work was to be advertised for competitive bidding. An estimate of required quantities is made and prices obtained by the Institution, together with a detailed estimate of outside labor required, if any. The work under these estimates is checked by the department as to quantities and manner of execution, and is known as the Special Fund Estimate System.

It must be conceded from the foregoing that the organization of the Department of Architecture of the State of New York has been developed to a very high grade of efficiency and is worthy of emulation, and the beneficial suggestions to be derived from its organization should be placed at the disposal of all other Architectural Departments throughout the country, whether Federal, State or Municipal.

Certainly the accomplishment of the plan as outlined would be far reaching enough to stretch over our entire country, and finally encompass the world. And should not the man who has been foremost in its development and adoption, in whose virile brain it first originated, be given the highest type of co-operation by all men, be they architects or not? The young men of our country have just passed through the acid test of war, cheerfully giving their all that an ideal should survive. Shall the professional men of this country do less than give their best thought and active co-operation toward the development of an Architecture that will be the highest art ever accomplished, in that it will serve humanity to the utmost? This will be characterized by some as being too idealistic and its suggestions therefore incapable of being carried out. Architecture is ideals expressed in stone and concrete, and to hitch your ideals to a star is none too high for the real architect, who desires to make his profession one of the highest arts rather than one of commercial exploitation.

The dreamer lives forever,
The toiler dies in a day,

but the dreams of the dreamer must be based on rational, structural philosophy, with a rock foundation firmly imbedded in the needs of the world. All creative art is the result of some one's dream, but unless that dream be put in concrete form and meets in some way the needs of humanity it is of no inherent value.

VENICE—FROM THE ORIGINAL PAINTING BY R. BELLOTTO
(COURTESY OF M. KNOEDLER & CO.)

EDITORIAL

Architectural Education

UNDOUBTEDLY the causes underlying the expression of dissatisfaction as to present conditions in architectural practice can be traced directly to faulty educational methods; the Post-War Committee has in its reports practically conceded this. The correct form of educational method as affecting inter-professional relations has been seriously considered by the committee appointed at the recent conference in Detroit. There was unanimity of opinion announced at the Nashville Convention as to the pressing need for a drastic revision, one that would be the result of the labors of architects in practice and not of those who are so deeply immersed in the present system as to be firm in the belief that present methods are, if not absolutely correct, the only methods which can be contemplated.

Many members of the Institute have placed themselves squarely on record as not content with present methods of architectural education. The Board of the Illinois Chapter much more than a year ago presented a comprehensive report on this important subject. This report contained the essence of a plan that was very generally approved and would seem to be worthy of careful consideration in the evolution of any revision. Other reports, also carefully prepared, are available. Why then longer delay action? Why continue to agree that there is need for revision—why not revise?

WHATEVER conclusions are reached cannot be secured in formal meetings, nor can it be expected that the Post-War Committee with all the many important matters that now engage it can give this subject the full measure of time to which it is entitled. If education affects the inter-professional relation then the revision will not only be necessary as to the curricula of architectural schools, but it will also be necessary to give careful consideration to that part of the education of those in many related fields which meet the wide and diverse extent of architectural practice.

All of the professions have many things in common and all of them during the past five years have undergone many changes in their methods of practice. The barriers that at one time kept each profession isolated either have been swept aside or so lowered as to become practically non-existent.

The Committee of the Inter-Professional Conference to consider the fields in which co-operation would be helpful recognized in the housing movement an important instance. In such cases there is needed the technical knowledge of architects, engineers, sanitation experts, landscape gardeners and the legal profession. Problems of housing or town-planning engage at one time or another the services of men in all these professions as well as groups of workers whose labors closely touch on each one of these.

IT is undoubtedly the opinion of the men in the profession who have given most thoughtful consideration to this important question of architectural education that present methods too largely accentuate the value of class-room work and are not sufficiently cognizant of the practical out-of-door examples which lie at hand awaiting exposition, and the students therefore do not realize the application of the profession which they are studying.

It happened that by the extraordinary circumstances of its environment the "University of Beaume" of the A. E. F. was compelled to work out different methods. There were no class-rooms and the students therefore were put to work out-of-doors measuring and dissecting buildings. They learned more in six months about how a building was put together than they could possibly have done in twice the length of time spent sitting in a class-room.

In our colleges a great deal of attention has been paid to the development of college spirit. Each youth becomes firmly imbued with the idea that there is no university but his alma mater. Do the universities hope by this method to increase their prestige and attendance?

OUT of this grows a pronounced snobbishness of each alumni for the others, of each profession for the others—which does not speak well for the cultural effects of education as it to-day exists. If culture means a perception of the relative forces of civilization, it makes a poor start when it accepts the idea that all professions but its own are subordinate.

The architectural student must be taught the relation of his own calling in present-day society. His education must be based upon the essentially practical things which he needs to know in the practice of his profession. And there may be eliminated many of the non-essentials, as our universities are eliminating from their other departments courses which for more than a hundred years have been considered essential. It should rest with experienced practitioners to decide what the essentials and what the non-essentials are.

Model Constitution for State Societies

THE Committee on State Societies of the Post-War Committee on Architectural Practice performed a very valuable service and took a long step in advance when it drafted and made public a model constitution and by-laws to aid in the formation of State Societies of Architects. This action on the part of this committee lays the basis of a very firm foundation in the formation of State Societies. It insures the co-ordination of effort. It secures the community of interest and solidity of purpose of all the Societies that shall be formed in the future. And it would be well if present Societies in various States working under entirely dissimilar constitutions and by-laws would substitute the present model form for those that are now in operation.

This action of the Post-War Committee is exactly in line with the policy that has been from time to time urged by THE AMERICAN ARCHITECT not only in the formation of State Societies but in the codification of State laws as affecting registration for architectural practice.

There are no good reasons why there should be basically any difference between the laws in various States, with certain very unimportant exceptions. If the American Institute of Architects had proceeded, when registration first became a debatable question, in the same manner as has the Post-War Committee's special committee, much of the confusion that now exists would have been obviated and it is logical to believe that the smooth working of these matters in the various States would have caused the passage of laws in many States where such laws do not at present exist.

Referring to the model constitution prepared by the Committee on State Societies, a careful reading fails to disclose any very serious omissions or anything that could be adversely criticized. It presents a clean-cut, well-considered working platform for the State Societies. In most localities men are too busy to give this intricate matter the careful consideration that it deserves and it is for this reason that State Societies have not been more generally organized. With the constitution and by-laws fitted exactly to their requirements, groups of men in all the various States where State Societies do not now exist may confidently, fully and speedily organize for the best interests and advancement of the profession as the most arduous part of their work has been performed for them by this very efficient committee.

The Lesson From a Tragedy

THE "Sun and New York Herald" in a recent issue and under the above heading comments editorially on the tragedy that was enacted in a New York house where a woman prominent in society and her two children were smothered to death as the result of a fire caused by an overheated furnace. It further comments on the fact that it was a singular coincidence that on the day of this accident the Committee of Fire Prevention of the New York Chapter of the American Institute of Architects issued through its Chairman, William O. Ludlow, a warning against the dangers of improperly managed heating apparatus.

It is astonishing with all the supposedly efficient fire prevention methods in New York City and the service of inspection that the taxpayer has the right to believe is being made, that a furnace in a pretentious house in a dignified residence of the city should be so improperly located and protected as to set fire to the building.

Possibly this lamentable accident will rouse the authorities to activity and strict precaution, but it is unfortunate that it should be necessary, as it has been equally unfortunate in the past, to sacrifice human life to awaken in the public mind the sentiment that will enforce a better compliance with fire prevention rules.

Natural Influences in Building

The Problem of the Country House and the Only True Method of Its Successful Solution

SINCE building is necessarily a creative art, writes M. H. Baillie-Scott in *The Architects' Journal* of London, and since houses take their places in the midst of fields and trees as man's contribution to the beauty of the world of Nature, it follows that some sympathetic knowledge of this natural world is desirable for those who would build in the right way. The old home fitted into its place in the country which it adorned mainly because its creators were permeated with country influences, and were themselves almost as much a part of their natural surroundings as the old home was. Their ways were Nature's ways, their thoughts and conceptions were akin to hers, and so it followed that they created, quite naturally, without any art education in schools and museums, without attending lectures or ruling lines on drawing boards, these old houses which we find it now so difficult even to imitate successfully. The same processes of civilization which have made man artificial instead of natural in his conceptions and ideas have also made of the modern country house a blot on the landscape and a deplorable desecration of sylvan solitudes. It seems essential then that those who build in the country should study not building alone but Nature also. It will be found that the trees and flowers all have their lessons for the builder, and that we can learn something more from them than from any books. The first thing we have to observe in all natural creations is that beauty is always intimately associated with practical functions. Nothing is too exquisite for its uses, and all forms are the inevitable result of the nice adjustment of means to ends. Here we find at once the same great principle which underlies the old buildings, and which is so painfully absent from modern work in which art is so often supposed to be a matter quite apart from the utilities. We hear nowadays of what is called pure art, existing for beauty alone without any vulgar taint of usefulness. We shall find no precedent in Nature for pure art, and even in the human form function is still the paramount fact. The leaves of the trees we shall find are but after all the lungs of an organism, and the tremulous movement of the foliage of the poplar is not merely for our delight, but is a contrivance for the prosaic purpose of keeping these lungs free from dust. In the flowers the brilliance of the corolla is but the guiding signal for the fertilizing bee, and as such may be compared to the brightness of the modern hoarding. It is a natural example of the uses of advertisement. In other cases color of the greatest beauty is used for the opposite purpose of concealment, and the strange markings in feathers and furs of birds and beasts are devised for the same object which leads us in stress of war to paint our gun-carriages with the variegated tints of the post-impression picture. These two opposing principles of advertisement and concealment give us the contrasts and harmonies which make up so much of the beauty of Nature. Another noticeable quality in Nature is its infinite variety combined with approximate similarity. No two nightingales pour forth exactly the same song. No two blades of grass cut the April air with exactly the same curve. Of all the millions of human beings on the earth no two are exactly alike. Each has his individuality and its peculiar differences in form and character. Similarity is always only approximate, and apparent uniformity is in reality coupled with constant individual variation.

The application of these natural principles may lead us in building a country home to introduce the principle of protective coloring to bring its walls and roof into harmony with its surroundings, and this seems particularly desirable in the case of houses surrounded by woodlands, or at least such materials may be used as Nature will color in her own way.

It will also follow that all the bricks and tiles used should, though apparently similar, have slight individual differences in form and color, and the same principle may well be applied throughout the whole construction in a thousand ways, and this need not be a difficult matter. In fact it is the natural result of human hand-work where the eye is the only guide without mechanical aids. Let us take for example the turned balusters to an old staircase. They look as if they are all the same pattern and as if they are all exactly the same distance apart, but as a matter of fact they have the same infinite variety as the grass blades in the meadow. No unnecessary trouble has been taken to destroy this variety by exact mechanical accuracy. But the modern mechanically-trained workman is at great pains to destroy all this subtle variety, and so his work is a lifeless and entirely uninteresting thing. Or if we consider the plans of old houses we shall find that the same general ar-

rangement of rooms is used again and again. Certain localities had very often certain standard plans. But in spite of this general uniformity each house had its difference. Each was individual. The modern builder on the other hand reproduces his stock plans with exact mechanical regularity, although variation in his case would not help us much, because it would be variations in different shades of ugliness.

If we take a wider view of the natural world and consider the sun and moon and the stars in their courses we shall find how the old builders without scientific knowledge of what we now call the solar system, yet instinctively divined and demonstrated in their work those cosmic laws of which they had no conscious knowledge. All these works of man fashioned under the guiding influence of natural law became a microcosm of the solar system. Each had its focal point, its sun which either as the altar in the church or the fire-place in the hall was the dominant note in the conception. For the great mystery of building lies in this. We take brick and wood and stone, all things which seem dead in themselves, and in arranging them in certain ways they acquire life and meaning. They seem to speak to us. The house so created, compounded of dull inanimate materials, takes to itself a personality. It may be full of charm and depth and earnestness of appeal. It may be shallow and frivolous, or cold and forbidding. But some such measure of life it has achieved. The charm begins to work with the putting of one brick upon another. For no work of this kind can be done without demonstration of the laws of the world. As in allegories and fables truths of deepest import are captured and fixed, and so brought within the range of our understanding; so building is a kind of allegory which may bear witness to the same great principles as those on which the universe is planned. Truly it is no small matter, this building art. Not a fit subject for mere commercial speculation, or to be practiced as a dull mechanical trade. It is something more, too, than a dilettantism concerned with revivals and renaissances and réchauffés, or any resurrection-pies of any sort. No learning or erudition will suffice to build rightly. It is more important to be a certain kind of person than to know a certain number of things. A knowledge too diffused cripples the creative initiative of the mind, which should be a clear, unclouded mirror and an instrument sensitively aware of all the influences of Nature, and in tune with those great truths of the world which it is the function of building as an art to express and confirm.

Unsanitary Housing as Affected by Political Elements

A terse analysis of the relation between housing and politics was recently made by Dr. James Ford of Harvard University and is here presented. Dr. Ford appeared before the recent meeting of the Committee on Public Buildings and Grounds of the House of Representatives in Washington. It was in the course of a hearing on the creation of a bureau of housing and living conditions in the Department of Labor that this clear summary was given. Dr. Ford said:

"I have a statement here from the 1910 census indicating that there were 20,255,000 families in the United States, of whom 10,697,000, or more than 50 per cent, were living in rented houses. I think there is an element of very real danger in this condition. Over half of our population living in rented houses! They are virtually nomads; they have no stake in the community. A man is not a good citizen unless he can vote conservatively and safely on such matters as public appropriations. No man is so safe a voter until he understands business principles, understands the problems which face the city. He does not understand those problems, or is not much interested in them, as a rule, until he has a financial stake in the community. I have found in my own city, fortunately, perhaps, that a considerable number of our tenement house and apartment house dwellers do not vote. They do not stay in any one place. They move from one suburb of a city to another. That might be fortunate, but still it is unwholesome to have any element in the community which is not working for the general public advantage, and these men do not work for the general public advantage.

"Those who do vote are persons who have lost all interest in good conservative and constructive public action, and the Bolshevist element is recruited from this group.

"On the other hand, there are complaints of rent profiteering, bitter complaints, which are a source of discontent, and yet property-owning interests claim that they cannot build houses to rent at a profit under present prices of materials and labor. It seems to me that this is a matter of such vital importance that it should be studied by a disinterested agency to find out what constitutes rent profiteering, what is a proper return to invested capital, and what kind of houses can be constructed that can be rented at a profit to skilled workmen and to unskilled workmen."

BASEMENT PLAN,
CLINIC BUILDINGS NOS. 7 AND 8,
SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*

BUILDING NO. 7

BASEMENT CONTAINS A SHOWER ROOM AND CLEAN AND SOILED CLOTHES ROOMS FOR INMATES OF THIS BUILDING

A FAN AND HEATER ROOM, SUPPLYING HEATED AIR TO CELLS, IS ALSO SHOWN

BUILDING NO. 8

THE BASEMENT CONTAINS A DINING ROOM WITH THE NECESSARY KITCHEN, SCULLERY, SERVICE AND REFRIGERATING ROOMS FOR THE ATTENDANTS OF THIS BUILDING

AMPLE STORAGE SPACE IS ALSO GIVEN

SUPPLIES FOR THIS BUILDING ARE TAKEN IN AT THE REAR AND DISPOSED OF THROUGH ELEVATOR AND DUMBWAITER SERVICE

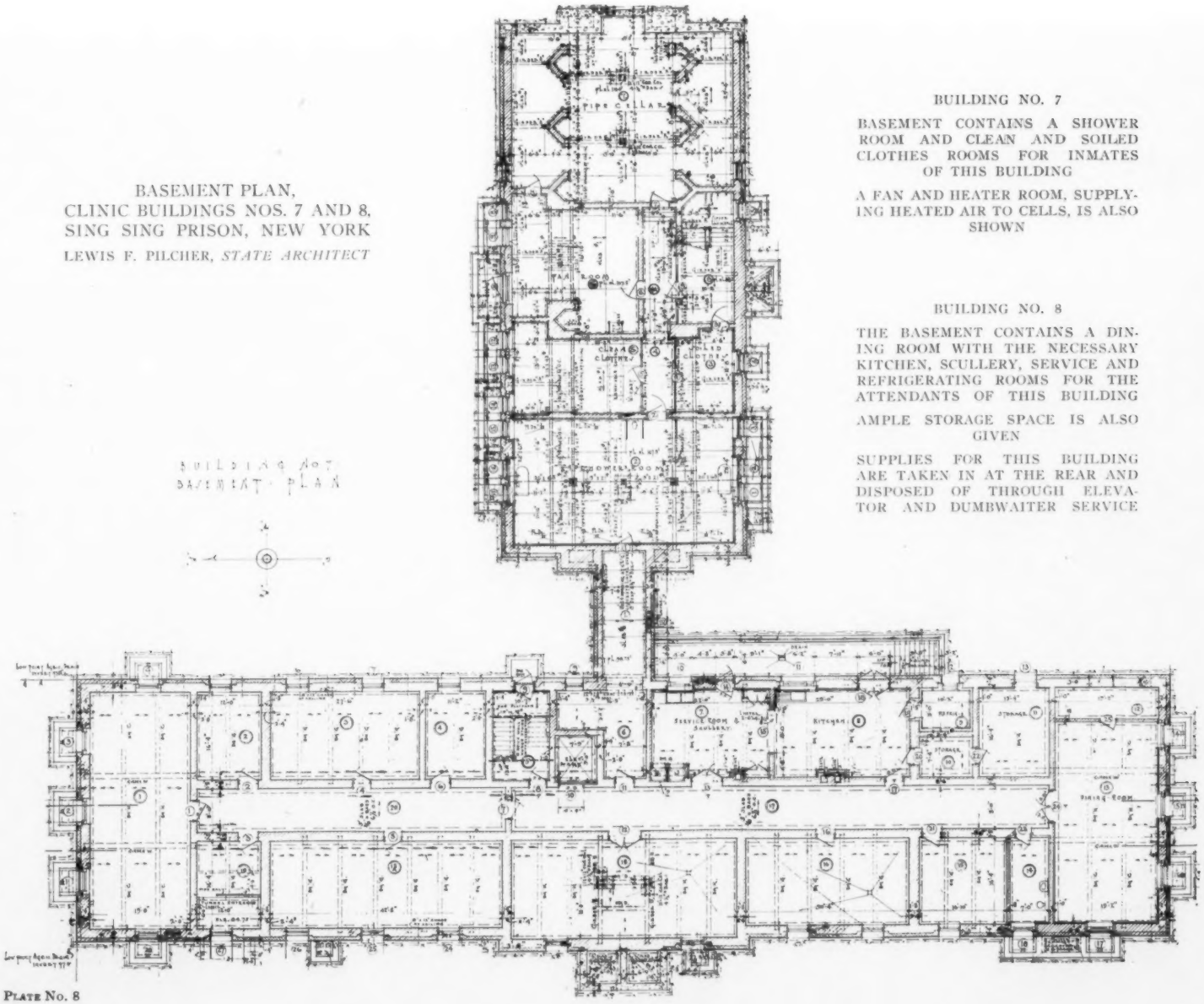


PLATE NO. 8

FIRST FLOOR PLAN,
CLINIC BUILDINGS NOS. 7 AND 8,
SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*

BUILDING NO. 7

FIRST TIER OF OUTSIDE CELLS. THIS FLOOR HAS A CONNECTING STAIRWAY TO CLINIC BUILDING AND AN INDEPENDENT OUTSIDE ENTRANCE. PROVISION HAS BEEN MADE TO ALLOW FOR CONNECTION BY ENCLOSED PASSAGE TO FUTURE CELL BUILDING EAST

BUILDING NO. 8

ROOMS FOR MENTAL AND PHYSICAL EXAMINATION OF INMATES. LABORATORIES AND ADMINISTRATION ROOMS

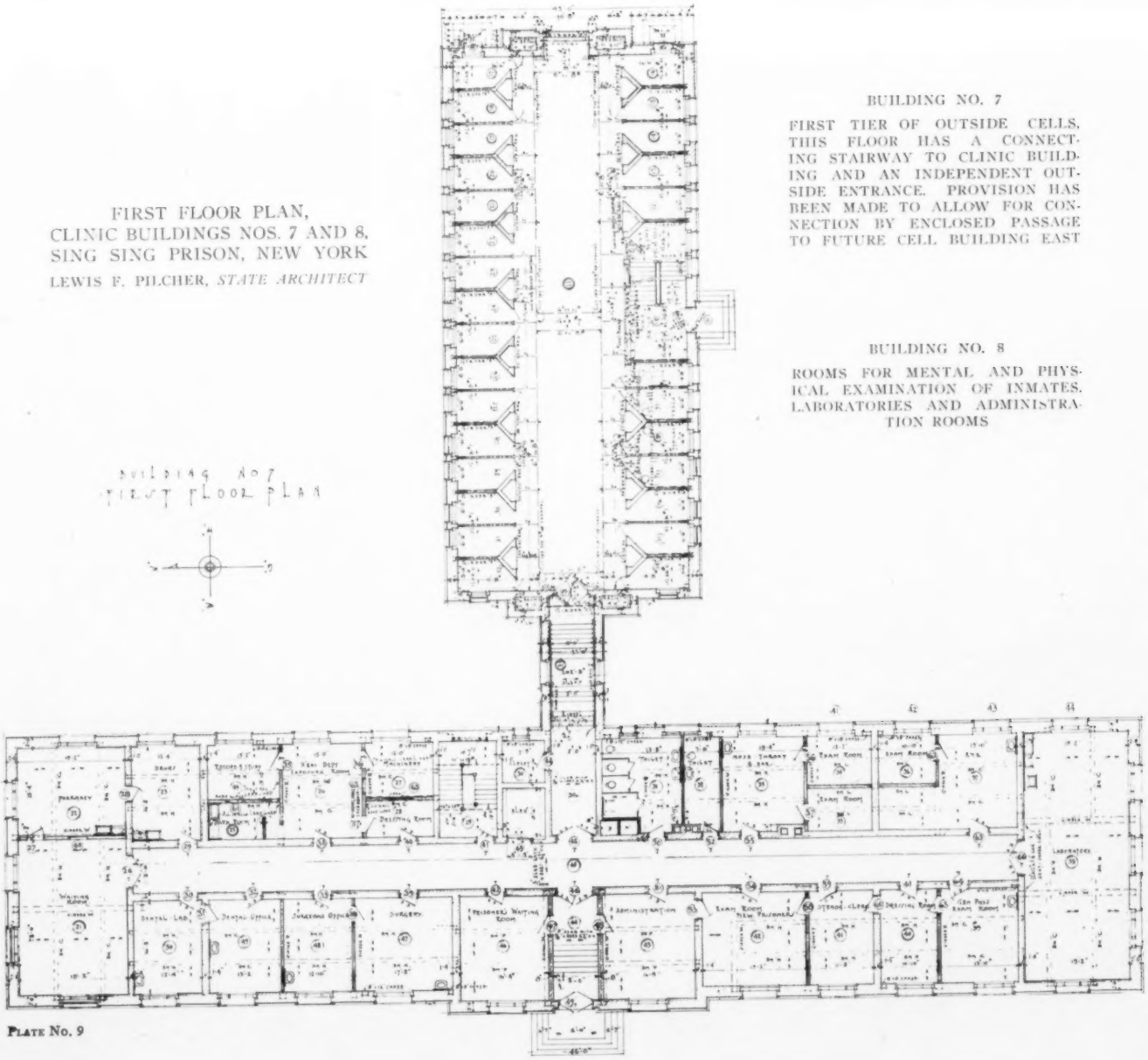


PLATE No. 9

SECOND FLOOR PLAN,
CLINIC BUILDINGS NOS. 7 AND 8,
SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*

BUILDING NO. 7

SECOND TIER OF OUTSIDE CELLS —GUARD WALKS AND CENTER OPEN WELL

BUILDING NO. 8

EXAMINATION ROOMS, MUSEUM, LIBRARY AND LABORATORIES FOR RESEARCH WORK. LECTURE ROOMS

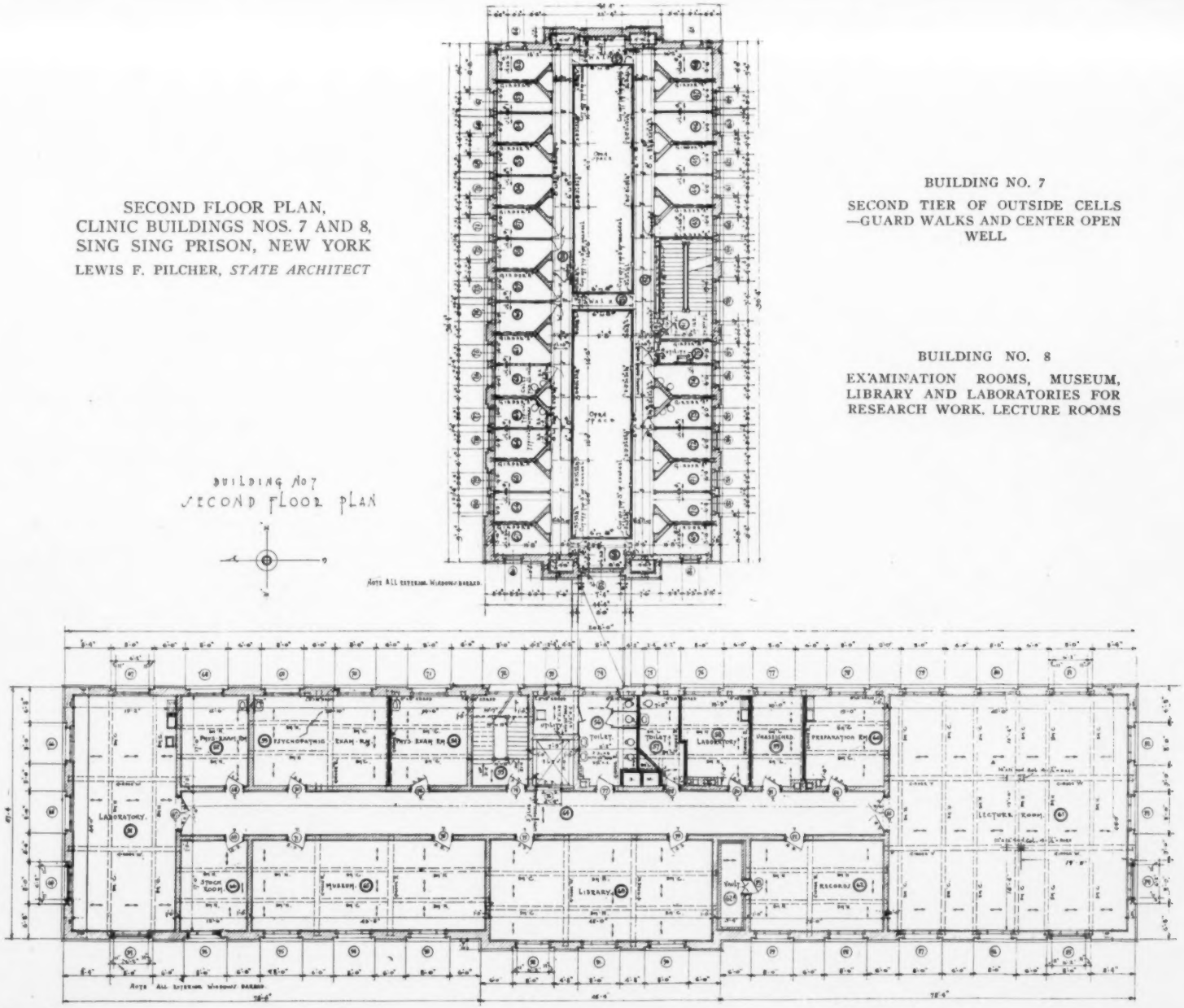


PLATE No. 10

THIRD FLOOR PLAN,
CLINIC BUILDINGS NOS. 7 AND 8,
SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*

BUILDING NO. 7

THIRD TIER OF OUTSIDE CELLS, SHOWING GUARD WALK AND OPEN WELL

BUILDING NO. 8

HOSPITAL FLOOR, WITH NECESSARY WARDS FOR INMATES IN NEED OF MEDICAL ATTENTION AND OBSERVATION. DOCTORS' AND NURSES' ROOMS—TOILETS AND BATHS AND SERVICE ROOMS—ARE PROVIDED

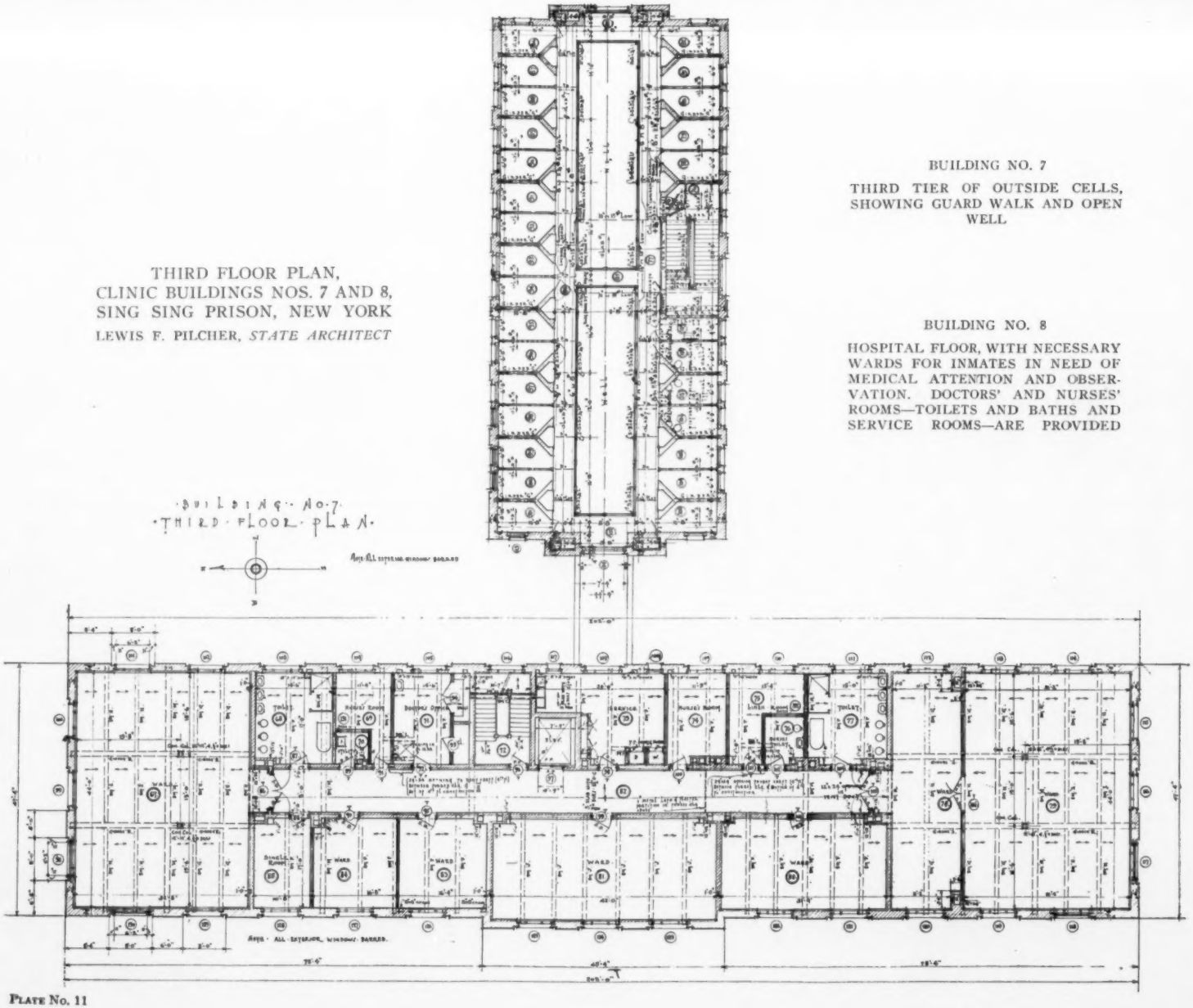
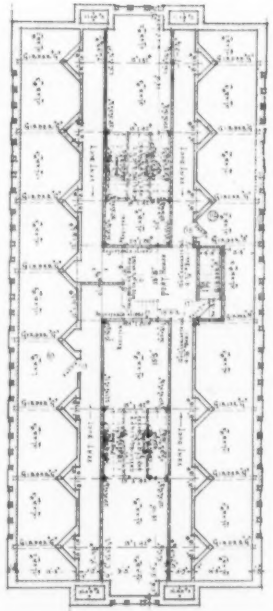


PLATE No. 11

FOURTH FLOOR PLAN,
CLINIC BUILDINGS NOS. 7 AND 8,
SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*



BUILDING NO. 7

ATTIC PLAN SHOWING VENT DUCTS AND FAN ROOM

BUILDING NO. 8

OPERATING AND NECESSARY PREPARATION ROOMS. A ROOF SOLARIUM 150 FT. ABOVE THE HUDSON FOR INMATES UNDER MEDICAL TREATMENT. ROOMS FOR NURSES

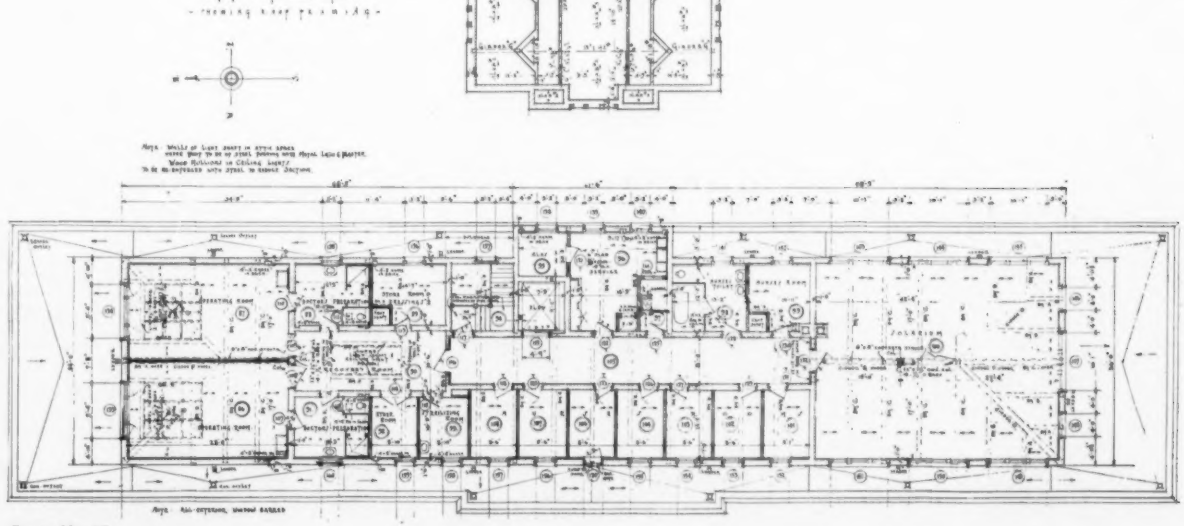
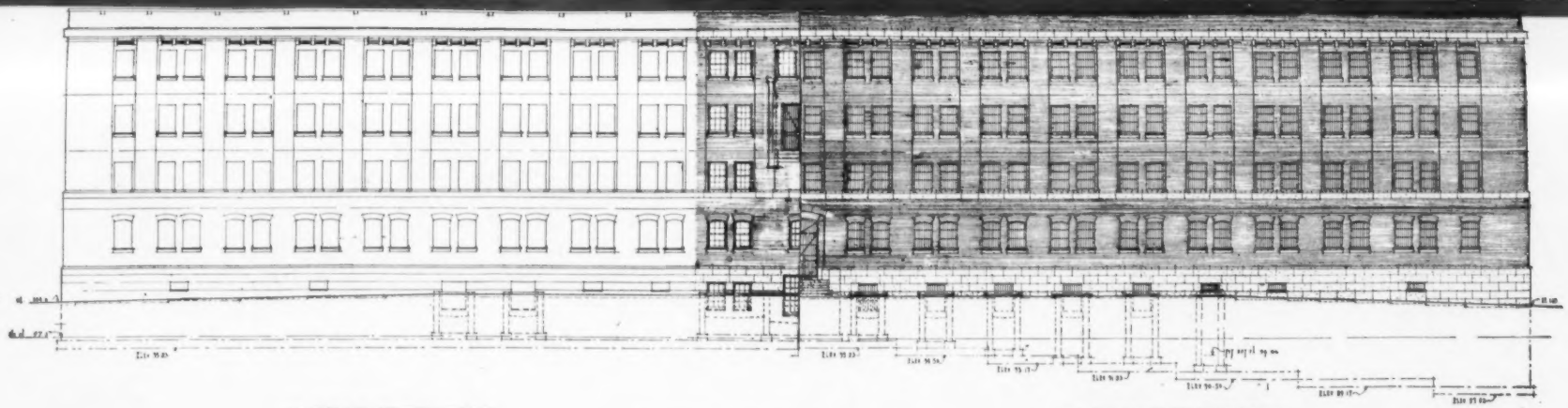


PLATE No. 12



½ REAR ELEVATION

½ FRONT ELEVATION

DETENTION BUILDING NO. 5

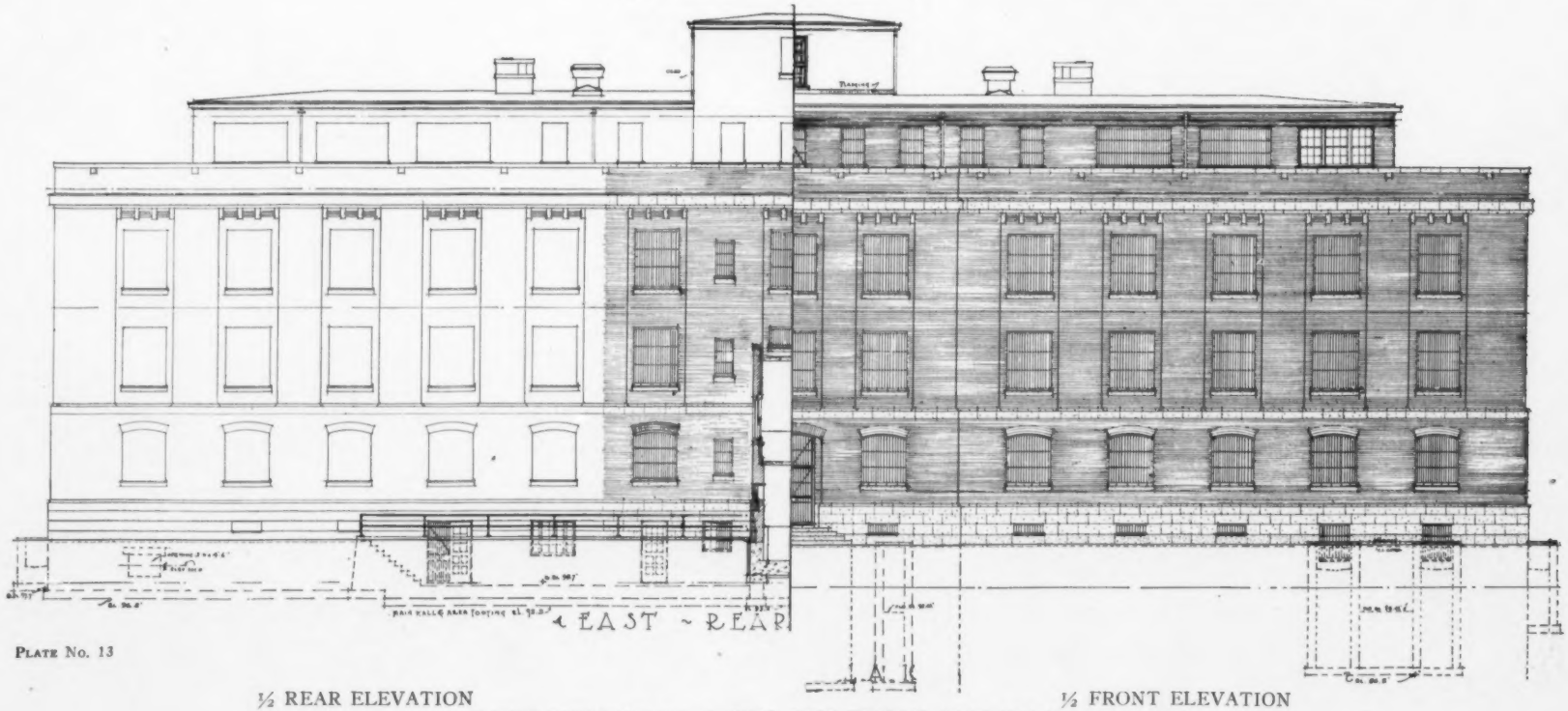


PLATE No. 13

½ REAR ELEVATION

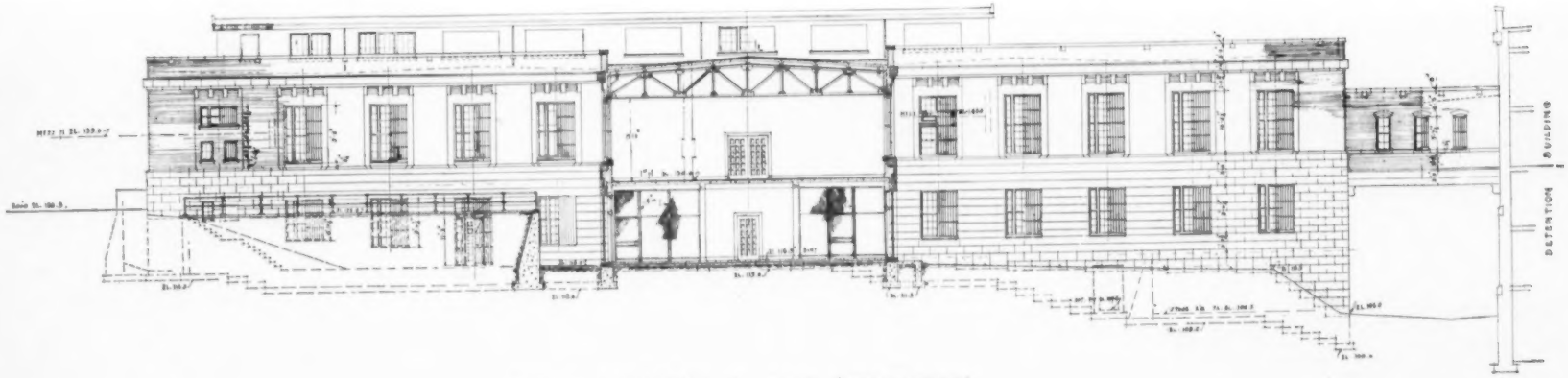
½ FRONT ELEVATION

CLINIC BUILDING NO. 8, SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*

UPPER HALF—Front and rear elevations of the basement and four-story Detention Building No. 5 (Outside Cell Building). Walls below first floor faced with granite; upper walls brick, laid in Flemish bond, with granite sills, belt course and cornice. The front of this building overlooks the Hudson River at an elevation of, approximately, 110 ft. above high water. Shower bath and clothes storage rooms are provided in the basement and the upper floors are fitted with outside cells. All windows and doors are heavily barred.

LOWER HALF—Front and rear elevations of the basement and four-story Clinic Building No. 8. This building is used for the mental and physical examination, the classification and medical treatment of incoming prisoners. Walls below the first floor are faced with granite; the upper walls are of brick, laid in Flemish bond, with granite sills, belt course and cornice. The front of this building is, approximately, 110 ft. above the River and from the solarium there is a magnificent open view. All windows and doors are heavily barred.



NORTH ELEVATION OF EAST & WEST WINGS

SOUTH ELEVATION OF EAST & WEST WINGS

PLATE No. 14

MESS HALL AND KITCHEN BUILDING NO. 4, SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*

Elevations of Mess Hall and Kitchen Building.
Walls below first floor faced with granite; upper walls brick, laid in Flemish bond, with granite sills, cornice and coping.
Here again is emphasized the advantage of terracing. The basement floor level in West Wing is above finished grade. A Mess Hall is placed on the basement of this wing.
An enclosed passage bridges the gap between the Detention Building and the Mess Hall and Kitchen Building.

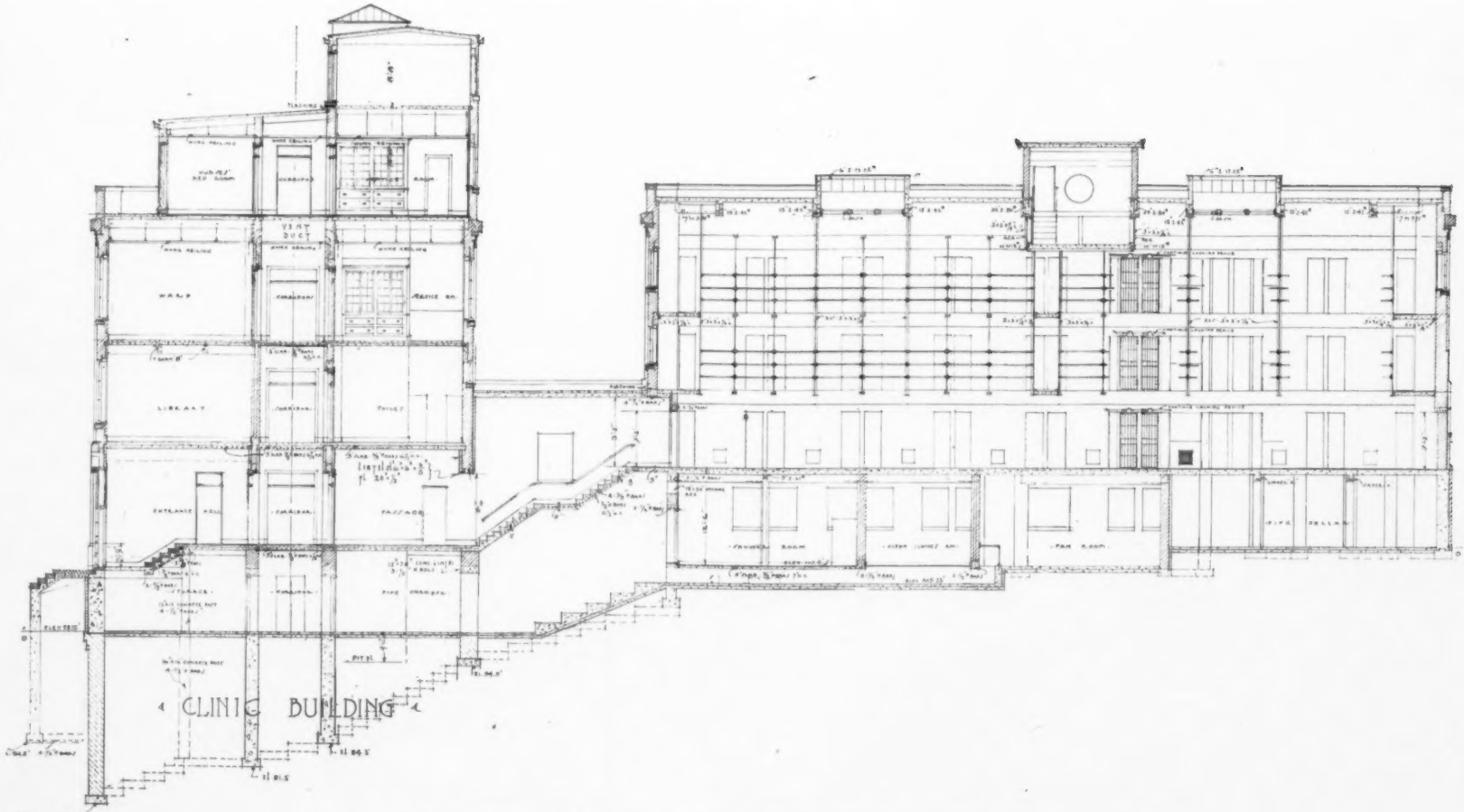


PLATE No. 15

OUTSIDE CELL BUILDING NO. 8, SING SING PRISON, NEW YORK

LEWIS F. PILCHER, *STATE ARCHITECT*

This section is taken on the center line running East and West. The connection between the Clinic Building and the Outside Cell Building are shown. Building No. 7 has an open well in the center and tiers of cells with guard walks are placed on either side of this well.

Current News

Happenings and Comment in the Fields of Architecture and the Allied Arts

In order to supply our readers with material of current interest, the news and comment appearing in issues of THE AMERICAN ARCHITECT delayed by the printers' strike will be as of actual rather than stated date of publication.

Chicago's Architectural Transformation

Is Chicago developing a distinctive architecture of its own? Is the new City Plan for which the Chicago Plan Commission has been working for years going to result in an individual style of municipal architecture to be found nowhere else in America? Is Chicago, the original home of the modern "skyscraper", destined to have its skyline changed? Are beauty and utility to go hand in hand in the new scheme? It would seem so.

The transformation, if it may be so described, has begun along the lake front—Michigan Boulevard—with the completion of the Field Museum, a structure which with its immediate environs represents an investment of probably $12,000,000. Recently, when the city council passed an ordinance providing for the proposed lake front parkway improvement to cost $160,000,000, it was stipulated that the new railway passenger station of the Illinois Central and Michigan Central railroads must conform in architectural design and finish to the museum building which will occupy the site nearby. As one architect expressed it, architectural harmony would not permit the station to "swear at the Museum."

Then the South Park Commissioners, who exercise jurisdiction over Chicago's famous Grant Park, decided to construct an immense Stadium south of the station and museum buildings and in order to harmonize this group the same adaptation of Grecian lines was ordered carried out. This stadium will in future years become the center of Chicago's municipal playground, where athletic events will be held and where it is hoped the international Olympic games will be staged in the not distant future.

But this is only one phase of the enormous municipal improvements under way. Connecting the lake front development there is now being completed a system of parkways to reach out into the western section, passing through the business section, which already is beginning to reflect the new idea of city planning. And within a few blocks of the Grant Park group is Chicago's new Union Station, now being built at a cost of more than $65,000,000. This station, together with the recently built Northwestern Railroad Station, and the proposed new Post Office Building, to cover the two blocks between, form another group harmonizing in their architectural lines with the lake front group. Again, no "swearing" is to be permitted between these two groups.

Within the last few weeks there has crystallized along the North Shore of Chicago's lake front, along an extension of the Michigan Avenue parking, a definite program on the part of the property owners to censor the character of buildings to be erected in that section in order that the architectural harmony of the entire lake front may not be destroyed. In this program the architects interested in the Chicago Plan have agreed, with the result that the entire north side, from the "loop" to the Lake Shore Drive, is to be built up in the future with a definite idea in view—to preserve the architectural beauty of Chicago's lake front and future skyline.

The present program is to take into consideration the present Municipal Pier as a part of the scheme—as has always been in the minds of members of the Chicago Plan Commission. What the ultimate result of the present tendency will be; whether it will actually bring about a distinctive Chicago architecture in the broad sense, is, of course, a matter of conjecture. Yet there are architects of vision here who see this probability.

In the meantime, the city is working forward in its zoning scheme on a broad plan, this zoning to fit in the general plan for a more beautiful as well as efficient city.

Architects Ask House Investigation

In view of the continued shortage of housing accommodations throughout the country President Wilson's Industrial Conference has been asked to make a thorough investigation of the situation. Declaring that in New York City alone more than 30,000 new dwelling places are immediately required, the American Institute of Architects has called attention to the crisis in a letter to all members of Congress. The Institute says in part:

"The causes for this condition are no doubt many and various. They relate to the war, to the cost of buildings, to wages, rents, land and building speculations, and, incidentally, to the whole fabric of our industrial system. The house and home are an indissoluble part of the national fabric. They cannot be isolated and studied as detached symptoms. They must be considered as a part of the whole problem, and we believe the Government of the United States should at once take steps toward making a complete and impartial investigation into the problem of adequate shelter for its increasing population."

Artificial Daylight Practically Achieved by New British Invention

A light has been perfected in Great Britain which is understood far to surpass any existing arrangement of artificial light, and to be the closest approximation to actual daylight ever accomplished.

The apparatus consists of a high-power electric light bulb, fitted with a cup-shaped opaque reflector, the silvered inner side of which reflects the light against a parasol-shaped screen placed above the light. The screen is lined with small patches of different colors, arranged according to a formula worked out empirically by Mr. Sheringham,

the inventor, and carefully tested and perfected in the optical engineering department of the Imperial College of Science and Technology.

The light thrown down from the screen is said to show colors almost as well as in full daylight. A test was made with such articles as colored wools, Chinese enamels, pastels and color prints, each being subjected successively to daylight, ordinary electric light and the new Sheringham light. Under the new light delicate yellows were quite distinct, indigo blues were blue, cobalts had their full value, and violets lost the reddish shade which they display in electric light.

New York Society of Architects Meets

The monthly meeting of the above organization took place on Tuesday, January 20th, at the Society's headquarters, United Engineering Societies Building, 29 West 39th Street, New York City, President James Riely Gordon in the chair. There was a good attendance of members. The matter of the formation of a Junior League in affiliation with the Society, which has been under consideration for some time past, was discussed and it was finally decided to have a conference with other architectural organizations regarding the Union of Draftsmen. A committee of five members was appointed to represent the Society.

The bill giving the Board of Appeals power to subpoena witnesses was then discussed. Opposition to this bill in its present form developed and it was finally ordered that the Senate Cities Committee be notified that the Society is opposed to the bill and desires public hearing on the same.

Belgium to Erect Workmen's Homes

The Belgian Government has decided to allocate $20,000,000 in 1920 for building workmen's houses. This money will be loaned to the local authorities on approved building societies at 2 per cent for 20 years, at the end of which time a new loan will be entered into.

The conditions are that no loan may exceed half the cost of the building, or a maximum of $1,200, and the rent charge must not amount to more than 4 per cent of the total cost of building.

It is officially calculated that the cost of building in the devastated areas will be about $2,000 a house. A garden city of 100 houses at Roulers has been begun.

Americans to Donate Marne Statue to France

In commemoration of the victorious stand of the French on the River Marne in 1914, a colossal stone statue, one of the largest of the world's sculptures, will be placed there by American children, according to plans announced recently by Thomas W. Lamont, of J. P. Morgan & Co., Chairman of a committee of representative Americans who have the project in hand.

The exact location of the statue has not been determined, but it will be at a spot near the little town of Meaux, which formed the high-water mark of the German advance in 1914. Marshal Joffre and Marshal Foch will fix upon the exact location. The erection of the memorial has received the official sanction of the French Government.

Frederick MacMonnies has been selected as the sculptor. It is expected the monument will cost $250,000, which will be raised by a free-will offering of citizens in all parts of the country.

Craftsmen Form School

As an educational extension of its work, the National Society of Craftsmen has established at 535 Lexington Avenue, New York City, "The School of Craftsmen," under the direction of Mr. C. Scapecchi. The prospectus of the new school, written by Mr. Scapecchi, explains the interesting educational idea in back of the school:

"In olden times when the Arts and Crafts were more appreciated and Art manifestations were a result of love for beauty and aesthetic conception was intense and multiform, Schools of Art were unknown.

"The craft's master in his own bottega was the teacher of his own discipoli to whom he was prodigal of advice and instruction, thoroughly preparing his pupils for their vocational craft. Drawing, as well as practical work, materials and proper tools were at the disposal of future craft's masters and each one felt himself free to develop his individuality. This was the way to form and build the real artist or craftsman in the old days; and when the National Society of Craftsmen decided to start an educational extension to be called The School of Craftsmen, and bestowed upon me the great honor of being chairman, they conceived the idea to run the School on a practical system of instruction.

"Voluntarily a group of distinguished craftsmen of wide experience joined in the pleasant attempt to materialize the idea and in this prospectus book every one of them is given the definition of their craft related with the Industry. Though the world's war has brought sorrow and sadness to the various nations engaged, it has revealed to us many useful things of which America should take advantage. It is almost the duty of this country to prepare its own artists and craftsmen and to create artistic taste where it is not. It is very commendable to have placement offices, but it is of a more tangible success if you prepare the students to face the situation created for them by the newly acquired position. Because there is a step, a big one, between the Art School and the manufacturers' need.

"The creation of a practical school is imperative; the students should know the secret of how to do well and build their own artistic education through a period of apprenticeship as in the case of our school, and such a gradual education would be accomplished with the frequency of courses.

"Schools like ours will create in the near future a new form of institution. The Factory School, the ideal institute where the students of limited financial resources can obtain instruction on their vocational craft and acquire the practical knowledge while they would be self-supporting. It is a dream of the future, but I wish this country would build many Factory Schools so as to be able to meet the need of architects, decorators and manufacturers. Too much energy and power are dissipated to-day and are working apart, therefore the beauty of an idea sometimes gets lost or is not generally appreciated."

C. Scapecchi,
Chairman of the School of Craftsmen.

Among the patrons and patronesses of the new school are the following: Mrs. John W. Alexander, Mr. John Quincy Adams, Mr. Arthur S. Allen, Mrs. Herman B. Baruch, Mrs. Charles W. Cooper, Mrs. Cleveland H. Dodge, Mrs. Wm. Henry Fox, Mr. Francesco Paola Finochiaro, Mrs. Charles Dana Gibson, Dr. James P. Haney,

Mr. William Laurel Harris, Mrs. Ripley Hitchcock, Miss Susan Johnson, Mr. Frederic W. Keough, Mr. E. N. Khouri, Mrs. Charles R. Lamb, Mrs. Philip Lydig, Mrs. Howard Mansfield, Mrs. Henry Mottet, Mrs. Walter Scott Perry, Mrs. Mary Hall Page, Mrs. Charles P. Richards, Mr. Eric K. Rossiter, Dr. W. L. Russell, Mrs. Henry Watrous, Mrs. M. C. Ripley Weisse, and Miss Irene Weir.

Washington State Architects Seek Uniform Building Code Legislation

Members of the Washington State Society of Architects at their January meeting went on record in favor of a state law creating a commission to draft a state building code to standardize the requirements for the respective classes of buildings.

Edgar Blair, Julius A. Zittel and Harry H. James were appointed to serve on a committee to prepare a draft of the act proposed and to take the matter up at the next session of the Legislature.

Standardization and simplification of the building laws in the larger cities of the state would be desirable, the architects declare, as present city building codes vary widely. There also is a need, they say, for a building code for the smaller cities of the state which could be made to reduce their fire risk.

Modern Home Equipment for Australia

Following a recommendation of a new working standard for domestic servants and the consideration of conditions which tend to make domestic service in Australia distasteful, a largly attended meeting of women in the Sydney Town Hall a short time ago, decided to appeal to the Institute of Architects for more attention, in the designing of homes and flat buildings, to the domestic working side of them. One speaker declared that if she had her way she would make every architect serve six months in a kitchen before he was deemed competent to plan that department of a house. There is widespread interest here in the labor and space-saving features lately developed in the planning and building of homes and apartments in the United States; first of all, in the design—the arrangement of rooms; the special attention paid to the needs of the housewife, her comfort and ease; then the planning of built-in closets, sideboards, kitchen and bath cabinets, wall-beds, etc., which not only save space and provide many conveniences, but render unnecessary the purchase of considerable furniture.

Sydney officials have received numerous inquiries from Australian property owners for information concerning the design and construction of American homes and apartments and their interior labor and space-saving arrangement, and would be glad to hear from American architects, builders and manufacturers of household fittings willing to forward descriptive matter for distribution. Lists of architects, plumbers and builders of Sydney (copies of which may be obtained from the Bureau of Foreign and Domestic Commerce or its district and cooperative offices upon referring to FE—23002, FE—23003, FE—23004, respectively) are transmitted in order to make it possible for American designers and manufacturers of labor-saving household appliances to get in direct touch with them and possibly work out a comprehensive plan of co-operation whereby the introduction of these fittings might be increased.

Reorganization of Indiana Limestone Quarrymen's Association

The Indiana Limestone Quarrymen's Association, with headquarters at Bedford, Indiana, in anticipation of a year of unprecedented building, has recently been reorganized and expanded with a view to increasing its facilities for serving the architectural profession.

The Association maintains a staff of field representatives who, unhampered by the bias of salesmen, are able to render valuable help in the solution of problems connected with their industry.

French Art Passes to Other Lands

As the result of the ruinous rate of exchange France is being robbed to a frightful extent of her art treasures.

Rich foreigners, especially Americans, Spanish, Argentinians and Brazilians, are said to be flocking to Paris, changing their native currency into French francs, doubling their original amount as a consequence, and then buying up everything that is available in an art and antique line. The cost to them is of course just half what it would be were the rates of exchange normal.

Paintings, statuary, old engravings, rare books, Sevres vases, and in fact just about everything in the art line that France considers a "heritage of French civilization," is rapidly becoming an acquisition by some civilization that did not produce it.

While in many instances the state is given the opportunity to buy these things before they pass into the hands of foreigners, France has too many war debts on her hand at the present time to think of buying art treasures.

Why "Walls Have Ears."

"Walls have ears," the cautious say. This expression originated with a courtier of the days when Marie Medici sat upon the throne of France, writes a correspondent. The queen was a suspicious woman and the troublous times in which she lived probably made her more apprehensive than she otherwise would have been. Her fear of the plots and plotters led to installation in the Louvre of a system somewhat like our modern dictagraph. This consisted of numerous tubes running from one room to another, which were called "auriclaires." These were supplemented by hollow passageways in which the queen or her agents might listen to a conversation beyond the wall. A writer of her time records that a follower of the court to whom he was talking one day in the Louvre suddenly halted and with finger to lips reminded him that "walls have ears."

Tapestries Returned to Mantua

Mantua—famous for its Renaissance and for the part it played in the struggles between the dukes of Mantua and Gonzaga—has regained its celebrated tapestries, lost when the city was ceded to Austria.

Nine in number, done from paintings by Raphael and inspired by and illustrating the lives of St. Peter and St. Paul, these wonderful masterpieces of the tapestry-maker's art are so precious that a sonnet was dedicated by Eugisto Callides to Signora Antonia Carre-Lovenzini, who repaired them. The tapestries are now on exhibition in the galleries of the Ducal Palace, whence the

tapestries were taken. Since their return, the palace has become the scene of brisk battle between the critics, one faction declaring them to be out of harmony with the severity and coldness of the architectural setting, another holding that the neo-classicism of the palace gives the tapestries their best effectiveness as rich and vivid designs in color.

Garden City for South London

A garden city near Grove Park railway station, costing about £4,320,000, is the joint proposal of the Deptford, Bermondsey, and Lewisham councils to meet the overcrowding in South London. They contemplate the acquisition of about 450 acres belonging to Lord Northbrook on the Bromley Road at Catford, and to put up 5,400 houses costing £800 each. It is estimated that the purchase of the land will mean an additional £250,000.

Personals

H. Robert Diehl and Samuel N. Vance have opened offices in the Virginia Carolina Building, Norfolk, Va., for the practice of architecture and engineering under the firm name of Diehl & Vance. Mr. Diehl has been engaged in the practice of architecture in Norfolk for a number of years and Mr. Vance has been connected with the firm of Anderson & Christie, Engineers, Charlotte, N. C., for the past six years.

W. D. Tunstall and Millard F. Arrington have recently opened offices in the National Bank of Commerce Building, Norfolk, Va., for the practice of architecture and engineering under the firm name of Tunstall & Arrington.

Sharove, Friedman & Krieger, architects and engineers, have opened offices at 307 Berger Building, Pittsburgh, Pa., and desire catalogues and samples for building material corporations.

David A. Lown has severed connections with the firm of Schoeppel & Hardy and has opened an architectural office at Room 218 Central Trust Building, San Antonio, Tex. Literature and samples from manufacturers are desired.

George W. Backhoff, George Elwood Jones and J. Frederick Cook announce the formation of a co-partnership for the general practice of architecture under the firm name of Backoff, Jones & Cook, with offices in the Union Building, 9-15 Clinton street, Newark, N. J.

Frederick Law Olmsted received a medal from the American Society of Landscape Architects at its recent annual meeting at the Architectural League, 215 West Fifty seventh street. The award was in recognition of his services in city planning. Mr. Law was also re-elected president of the society for the ensuing year.

Scott & Prescott, architects, William O. Prescott, R. A., and David Cairns Scott, R.A., have announced their removal to a larger studio at 34 East Twenty-third street. During the war Scott & Prescott were architects for the Army Hospital for shell-shock patients, the Soldiers' and Sailors' Club of New York, the recreation building for the Navy Aviation Camp at Montauk Point, L. I., and the Navy Post Office.

Benton & Benton, of Wilson, North Carolina, have opened a new office at Richmond, Va., Room 606, Times Dispatch Building. L. T. Bengtson, in charge.

News From Various Sources

Announced that world's greatest radio station, with aerials swung upon eight 900 feet steel towers, was completed at Bordeaux by United States and will be in operation next Spring.

* * *

The United States paid $222,129,292 in pensions to 624,427 persons last year. The largest number of persons ever on the Federal pension roll was 999,446 in 1902 and the total amount paid to them was $137,502,267.

* * *

Senate, January 14, confirmed District of Columbia Rent Commission. Action of Senate turns over to Commission thousands of rent controversies between tenants and landlords for consideration and decision.

* * *

Representatives of Negro race advocated before House Judiciary Committee, January 15, establishment of a separate State under protectorate of United States for segregation of Nation's Negro population.

* * *

Senate, January 15, passed Water Power Development bill, different in some respects from measure adopted by House in July, but following in general way same bill that has been before Congress in one form or another for past ten years.

* * *

Bureau of Memorial Buildings issued four bulletins in Community Buildings as War Memorials series. Titles: A Living Memorial; Existing Community Houses; Existing Public Auditoriums; Provisions for Art, Music and Drama in Memorial Buildings.

* * *

H. L. Kerwin, Director of Conciliation, states that United States entered New Year with fewer pending industrial disputes than at any time during last three years, according to reports from Department's conciliators in the 35 great industrial centers of country.

* * *

Charleston, W. Va., announces that housing conditions in and around that city have become so acute that a corporation, with a capital of $500,000, has been formed by the Chambers of Commerce of Charleston and St. Albans to provide homes for 1,500 additional Federal employees.

* * *

Senate, January 26, passed Kenyon Americanization bill, which would require all citizens of United States of 16 to 21 years of age, not mentally or physically disqualified, and all alien residents between ages of 16 and 45, who cannot speak, read or write English, to attend school not less than 200 hours a year.

* * *

Office of Chief of Staff announces that second session of conference of Army Staff Officers, which is being held at Washington, met January 13, with Major General W. G. Haan presiding. A tentative detailed and comprehensive War Department plan for reserve officers' training camps was explained to assembled officers by specialist from War Plans Branch of General Staff.

* * *

Associated Press announces from New York that all building records in territory north of the Ohio and east of the Missouri rivers will be broken in 1919, according to statistics made public, December 14, which shows that contracts totaling $2.332,902,000 were awarded for 11 months ending December 1, 1919, or $700,973,000 more than in the corresponding period last year, the previous high record.

Weekly Review of Construction Field

Comment on General Conditions of Economics With Reports of Special Correspondents in Prominent Regional Centers

Government Patronage

The dictum of ex-Secretary Glass upon the question of our governmental relation to the international financial situation has received the most serious attention not only in the almost bankrupt nations of Europe, whom some of our financiers believe were addressed somewhat too abruptly, but in this country as well. It is a statement which indicates a change in the tendency of affairs of a fundamental character. We, being the creditor nation, were forced to take the lead in the matter.

It is not an isolated opinion, but stands in harmony with Mr. Hoover's objection made months ago to our proposed extension of efforts for European relief. And almost simultaneously with Mr. Glass' statement that the Government must "get out of banking and trade," six national farmers' organizations have memorialized Congress: "the attempt to thwart natural economic laws by legislation is useless;" and with commendable enthusiasm they assert that there is nothing wrong with the country. Surely it is not one isolated view, nor is it limited to international credits.

The alternative of governmental support of individuals, of industries, of finance which has existed in Europe since the war and toward which we were drifting, is work. It was so stated by Mr. Hoover, by Mr. Glass and by the farmers. It will be so believed by every man whose common-sense has not become perverted by dreams of socialized Utopias.

With the withdrawal of government patronage, the phrase "more production" must become popularized and be put into practice. People generally may not look back over the past few years with a realization that this unproductive period in the army or navy was so much reduction of capital and of available supplies of material. They will, however (being led) set to work unanimously rebuilding that capital. This is the reconstruction of which we have talked.

There are objections to this tendency. There is an organized movement among speculators against the contraction of credit, which they associate with the Federal Banks' reduction of reserves. It is possible that the objections are well founded and that some very serious difficulties will be encountered before the present attempts of the Government to withdraw its support of the inflation have become accomplished.

The general direction, however, is clear: a reduction of governmental patronage and an increase in production. Whether the economies which accompany this deflation will be voluntary or enforced depends upon the adaptability of our national temperament. The speculators will surely be quick to adapt themselves and although there is at present a great uneasiness among manufacturers, they have the least to fear. The eventual result must be a stabilizing rather than reduction of prices and a more freely moving supply of manufactured material. Our neglected, our growing needs are far beyond their capacity to satisfy.

Governmental patronage of the building trade, if it is to be escaped, will be avoided by a narrow margin; for there is nowadays among the public-spirited an enthusiasm for bulk housing ideas which is rapidly mounting to hysteria. The schemes and ideas cover acres of newspaper space and drip from the mouths of politicians.

No architect would deny the facts: that an adequate housing for our population is essential; none but has observed that the available space was falling far behind the increases in demand. It has also been easy to observe that those people who depend upon someone else to supply month by month their home with a roof had difficulty in finding one last Fall, or that those whose rents were advanced along with the prices of everything else have started a hue and cry for Government intervention, for legislation, and for municipal building programs.

These various substitutes for building are all on the way. They have not and doubtless will not have the slightest effect upon the space available for housing. The construction industry continues to build with as much speed as the supply of materials and the weather permit. So far as progress of building is concerned, it goes as fast as it may. There is nothing to be gained by stimulating it from behind or dragging it on. It is, in fact, most probable that with the political negation of the natural laws of supply and demand the work would not be permitted to follow its free course and would instead over-develop in some phase where the need is least urgent.

The worst effect of this public attitude and of the deflation is the possibility of a stoppage of industrial construction by the dominance of housing, hotel and apartment building. Considering the present inability of factories to keep abreast of the demands, this one-sided development would be most unfortunate when it hampered an increase of production.

At present, however, the difficult transportation situation still has a most powerful influence upon the production. Its effect has been so pervasive that months will elapse before it will be possible to eliminate consideration of this factor.

The steel mills, for example, are seriously hampered by lack of fuel. Tracing back a step farther: the coke ovens are being supplied with but from 30 to 40 per cent of the cars required. Coke is piled up as high as the plants themselves and banking of the ovens seems inevitable.

As the car shortage impedes the supplying of steel mills with raw materials, so does it impede the shipment of their output to the fabricators.

From the standpoint of the railroad officials, the outlook is not encouraging. The shortage is a fundamental one and to be overcome only by construction and rehabilitation of the rolling stock. Moreover, February is one of the hardest months on freight movement.

Therefore, although the manufacturers in every department of the building materials industry are making great efforts to relieve the present famine, it seems impossible to hope for any sudden change of the present situation or any great recessions of prices for months to come. Undoubtedly the increasing demands will keep pace with

whatever may be accomplished in facilitating transportation and increasing supplies of materials.

(By Special Correspondence to THE AMERICAN ARCHITECT)

SAN FRANCISCO:

With the lumber market on the incline and steel extremely difficult to get hold of, architects and builders in the Pacific Coast section are facing a material shortage which has been accentuated this year by the continuation of building through the winter months to a degree not experienced for many years.

The need for houses has resulted in a demand for materials which cannot be filled under present production conditions. From all the lumber yards in this vicinity come reports of under-supply with no indication of prices dropping until the let-up on orders comes and that is not expected for many months.

Brick manufacturers are in a similar position. With production practically ceased for the usual winter shutdown, it is said to be impossible to fill all orders, and it is admitted by more than one dealer in clay building materials that the situation promises to become really acute before the reopening of the plants this spring.

In regard to the steel question at the present time, it is stated by local firms that stock is badly depleted. Some sizes of construction steel cannot be secured here at all and the specifications of an order, of necessity, greatly influence both the price and the actual filling of it. Exporters find it very hard to place business and are discovering that the demand for steel can only be met by placing their orders far in advance—and then taking a chance on the orders being filled.

Architects report that their offices are full of plans and the consensus of opinion is that 1920 will carry as much or more building activity as the year previous.

Building commitments for this city are centered on new business buildings in the retail shopping and manufacturing districts and in dwellings of $5,000 and up and homes costing $15,000 to $25,000. For some inexplicable reason the apartment house idea is dormant. Some of the jobbing trade ascribe it to the stringent so-called "rent hog" ordinance passed by the city council this winter in response to public clamor which requires all owners or agents to maintain a fixed degree of heat through the cold season on penalty of arrest, imprisonment or fine. There have been several prosecutions under this law.

Jobbers declare they cannot raise the price of brick and meet the situation, and are standing off of 7 cents each which they would require if quotations were to be advanced. The price of fire brick is $60 at the warehouse, against $45 in carload lots a year ago.

Reinforcing bars have advanced 15 cents per cwt on base price.

Prices of homes for sale are advancing rapidly. This has been brought about through the concession to probable rising costs of all building materials.

(By Special Correspondence to THE AMERICAN ARCHITECT)

SEATTLE:—The quotations on all building materials in this territory continue to ascend, but this fact does not seem to check the zeal of investors in contracting ahead for all items that enter into the season's projects.

The most serious aspect of the situation is the delay in arrival of materials from the East due to the car shortage and, as it is believed here, reactions from the steel strike. Lumber is higher, the mills accepting only the higher grades of finishing stock which pay the largest profits. The coastwise water rates between California and Puget Sound, under which the Nevada plaster used so generally in this territory has been traveling, have been advanced 85 per cent in 60 days, compelling material corporations to use the all-rail routes. This is gradually stiffening quotations. Claybourn fire brick, imported in large quantities from British Columbia, is costing jobbers $2.50 per 1000 more money than a week ago, and enquiries have now centered round Troy, Idaho, where a price differential can be secured.

There has been a slight easing off in the supply of cultivator steel which has been scarce through the last 30 days. Jobbers report their ability to resume quotations.

(By Special Correspondence to THE AMERICAN ARCHITECT)

BIRMINGHAM:

Birmingham reports many new buildings projected. Among the number several apartment houses, a new hotel and half dozen store buildings. "The Dulion" Apartments, a seven-story fireproof building on the corner of Eleventh avenue and Twenty-first street South was commenced this week. The approximate cost of this building is $300,000.00. It is also rumored that the Loew theatrical interests will build a new theater here this year, with a seating capacity of 2500. A contract for two mercantile houses was let to-day and it is claimed in real estate circles that many more are now under negotiation. The demand for business houses continues strong. It is stated upon reliable authority that large Eastern hotel operators are seriously considering Birmingham with a view of constructing a 600-room commercial hotel.

As spring approaches, many inquiries are made regarding home building and there seems a probability that this year will break all previous records for residence construction.

The price of building material shows no signs of immediate decline: in fact, it is believed that there will be further advance as the urgent need for buildings increases.

The output of lumber will have to be increased by southern mills if they are to meet the pressing demands of the country upon this source of supply. The labor question is materially affecting this situation, likewise the matter of transportation—car shortage being reported from many points. January weather conditions have seriously retarded logging operations. Many lumber sections are poorly provided with roads upon which logs can be hauled in bad weather. Extensive road building now planned for 1920 will relieve this trouble to some extent and permit the use of heavy trucks where now it its practically impossible to utilize them for that purpose.

(By Special Correspondence to THE AMERICAN ARCHITECT)

CHICAGO:—Architect Chas. Herrick Hammond, president of the Illinois Society of Architects, is predicting a serious condition in the building situation in the near future unless something is done to relieve the shortage in some lines of material as well as in labor. He points out that the shortage, particularly in glass and in steel sashes, has already caused delays in many of the improvements in the Chicago district. The lack of production, due to labor conditions and congestion in transportation, are the principal causes at this time. Mr. Hammond predicts that present high prices of materials will continue for at least two years longer.

Department of Architectural Engineering

Features of the Mechanical Equipment of the Wingdale, N. Y., Prison Buildings

LEWIS F. PILCHER, *New York State Architect*

By GEORGE B. NICHOLS*

FOR a number of years the State of New York has had numerous commissions and departments studying the problem of the proper housing of State dependents, particularly that division housed in the State's prisons. The outcome of these studies has been the development of two State prisons, one being constructed at Wingdale, to be known as the Wingdale Prison, and the other to be a new prison at Sing Sing.

In the development of a State institution it has been found by experience that at least forty per cent of the total cost of the institution is required for the mechanical dependencies of said institution. In the majority of cases in institutional planning these items have been somewhat ignored, making it necessary, during the life of the institution, completely to remodel the system installed, and never having a completely balanced unit. This is particularly noticeable in the central heating plants in most of the State institutions, the original design for which was not adapted for the final institution, making it necessary from time to time completely to remodel the central plant as the institution increased in size.

For the past six years the State Architect, Lewis F. Pilcher, has required that his Engineering Department accumulate such data as was available in all of the State institutions so that in the planning of Wingdale Prison this data would be utilized, and the institutional mechanical equipment would, as nearly as possible, meet the wants for which each particular item was to be installed. It is believed that the buildings now under construction will fulfill these requirements to a great extent.

In the selection of the site for any institution one of the first problems that arises, which should be thoroughly investigated before the purchase of land, is that the site has available a suitable and sufficient water supply and that the sewage from the institution can be discharged into certain creeks or rivers without detriment to the surrounding communities, and that no objections or injunctions will be raised by surrounding property owners. It has been found in a large number of cases that objections by property owners have raised sentiment to such a pitch that it was impracticable to proceed with the development of an institution.

At Wingdale these two points were carefully considered by the State Health Department and by numerous experts employed by the State. The water supply is to be taken from impounded water held back by a large dam to be constructed on the upper portion of the property, from whence the water will be delivered to mechanical water filters at the site of the dam, and from thence the water will be piped to the institution, delivering to same by gravity. The sewage from the institution will be delivered to a trunk sewer which will lead to a sewage disposal plant consisting of screen chambers, Imhoff settling tanks, sand filters and chlorinating apparatus, from whence the purified effluent will be discharged into a nearby creek on the property.

The base of the design has been planned for an ultimate population of fifteen hundred prisoners, although the equipment at the present time is for a much smaller number. In the heating of an institution of this size there still appears to be a considerable difference of opinion existing regarding individual, isolated heating plants and centralized heating plants. It may be possible to find certain institutions with moderately sized groups, heated from a group central plant, where each boiler plant is of sufficient size so that fairly economical operation may be maintained. These cases, however, rarely, if ever, exist, as these small isolated

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plants are unable carefully to study the problem of combustion, etc., so as to produce a high efficiency. It is also unwarranted to stokerize such boilers on account of their size, thereby eliminating in most cases the use of soft coal on account of its objectionable smoke with hand firing; so that in practically all cases the boiler plant efficiency, obtained from a number of isolated plants, is far below one centralized heating plant under the direction of one high class engineer.

The amount of labor, also, can be materially reduced by one centralized heating and lighting plant, and all waste of steam can be brought to a minimum. It is also possible, in prison construction, by having a centralized plant, to have all of the operating labor done by inmates with the exception of one chief engineer and an assistant on each watch.

In the location of a power house the same should be situated in close proximity to the railroad so that the coal can be delivered as nearly as possible to the firing space in front of the boilers. The plant should also be located as nearly central to the group of buildings as practicable, making it possible to radiate from same to all of the groups by the shortest heating lines. Quite often in centralized plants the location of the power house has to be varied from the above position on account of the architectural surroundings.

In the heating of institutions a large amount of discussion has been carried on over a period of ten years, in respect to the proper heating medium for group heating, whether the same shall be by steam (either gravity or vacuum) or by forced hot water.

After going over all of the literature and various plants installed throughout this country and abroad, the writer is convinced that any one of the above heating mediums or methods can be successfully undertaken at any institution.

There are certain groupings of buildings and methods of administration which have a material bearing upon which system should be selected. The main point to decide is which system is the cheapest to operate during the life of the institution, including yearly charges on original cost, maintenance and yearly depreciation. One of the main considerations in central heating is that the system must be as simple as possible, and if a steam system is selected, all traps and moving mechanism must be accessible, positive in their operation and easily inspected.

Each of these systems has developed a certain number of advocates, and the writer is surprised to note the various arguments and discussions advanced, a large number of which are not based on actual operating facts and fundamental, established values. Any statement made that all types of institutions can be heated more successfully by one system alone is incorrect.

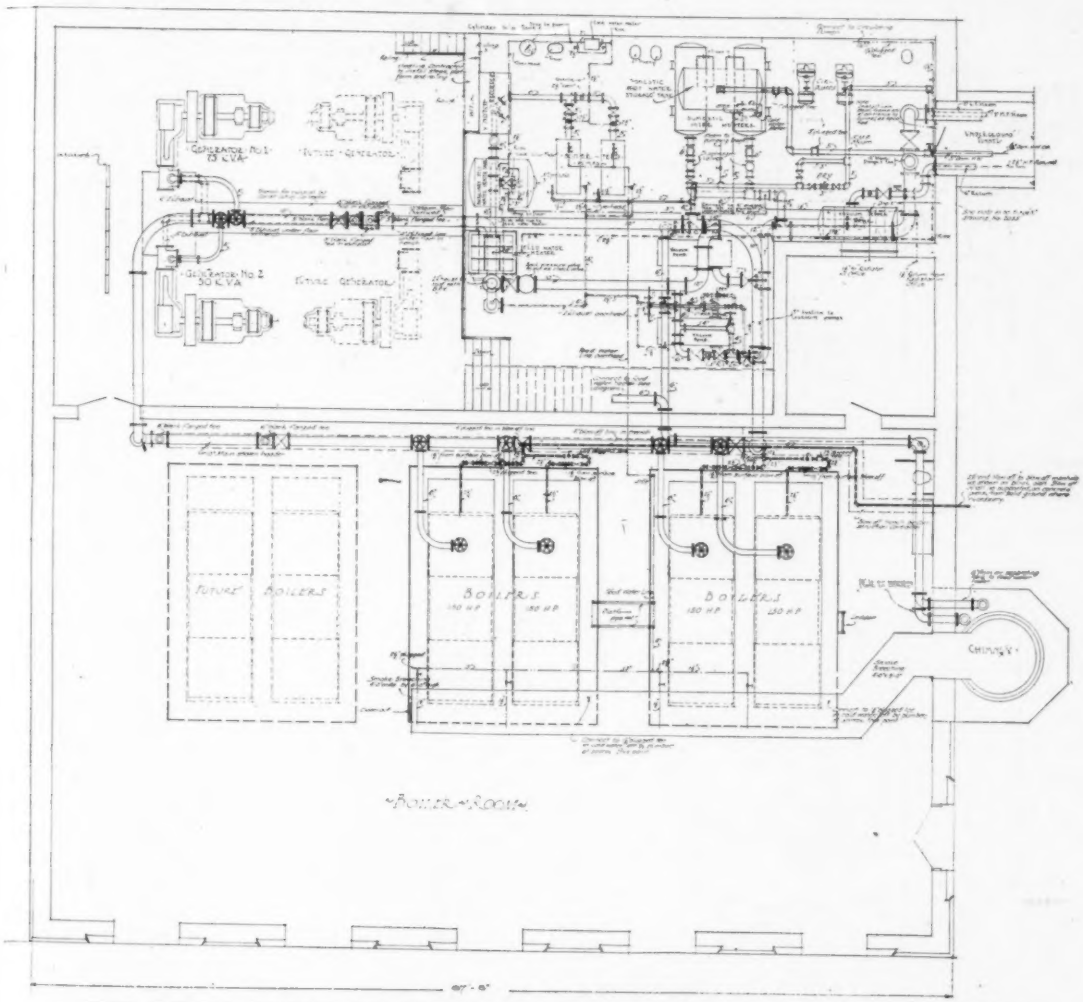
After going over the entire lay-out of the prison at Wingdale it appeared, on account of certain fundamental designs and conditions of administration, that a vacuum system of heating was preferable for Wingdale Prison. It would, however, have been possible to have heated this institution successfully by forced hot water, but the selection in system can only be arrived at after a careful balance of all the factors surrounding the institution in question.

There is one point that the writer wishes to bring out in favor of a hot water system which is that the deterioration of the piping system is undoubtedly a minimum on account of the same water being kept continuously in the piping, thereby reducing to a minimum the amount of activity of the water on the inner surface of the piping system. This, it is found, is a large factor in the up-keep of various institutional plants, as it appears that steam piping systems have to be renewed in a large number of localities at least once in about thirty years, and in a great many cases the return steam lines in a shorter period. This, of course, is dependent on the character of the water encountered and its activity, and the amount of make up water required to take care of the losses in the institution. In a majority of steam systems it is found that the amount of make up water is surprisingly large. The writer believes, however, that if the institutions throughout the State would study this phase of the work more, these losses could be materially reduced, thereby prolonging the life of their heating distribution systems and equipment, and also reducing the annual coal consumption.

The central heating and lighting plant for Wingdale Prison consists of two main rooms, namely, a boiler room and an engine and pump room. In the boiler room are located four 150 hp. return tubular boilers with reserve space for two additional boilers of equal capacity, the present boilers being furnished by the Ames Iron Works.

Various opinions have been raised regarding the type of boilers which should be installed. Of course, no hard and fast rule can be set, but in general central heating plants should consist of at least four units. If, therefore, the plant is less than 1000 total hp. it would make the units approximately 250 hp. each, and this is a small sized boiler to adopt for the water tube type. This would have a tendency, therefore, for plants under 1000 total hp. to have boilers of the fire tube type. Plants of this kind are in general not warranted in install-

ing overhead coal bunkers and coal and ash conveyors, as with the moderate amount of coal used and with sufficient prison labor the coal and ash can be handled direct from wheelbarrows or four-wheel coal cars with side dump. There is, however, considerable to be said regarding the installation of simple, mechanical stokers, even in plants of this size, with plenty of labor, so as to reduce the smoke nuisance and make the boilers as efficient as possible. In this plant, however, no stokers have been provided at the present time. Undoubtedly these will be installed at some future date.

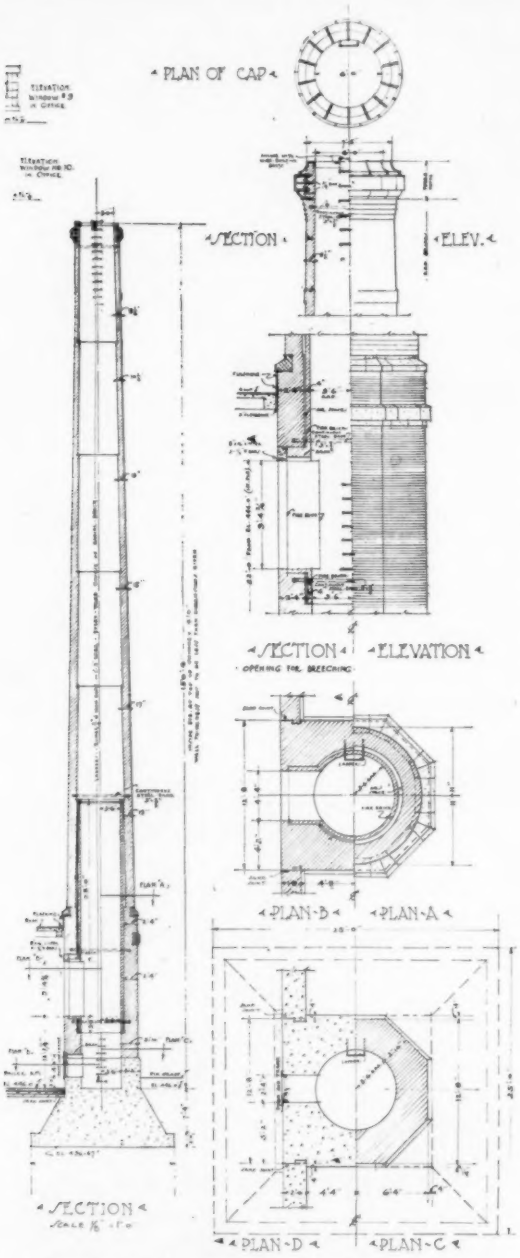


PLAN—CENTRAL HEATING AND LIGHTING PLANT, WINGDALE PRISON, NEW YORK, SHOWING LAYOUT OF MECHANICAL EQUIPMENT. NOTE UNDERGROUND TUNNEL FOR STEAM AND DOMESTIC HOT WATER MAINS

The engine and pump room, for prison work, should be combined in one large room so that all prisoners operating the plant can be completely under the control and observation of the engineer or guard. Two additional small rooms were provided, one for general storage of supplies, and an engineer's office for the keeping of all records, etc. In the engine room provision has been made for the installation of four direct connected A. C. 2,300 volt 3-phase engine-driven generating units with direct connected exciters, together with main switch board. At the present time two generators, one being 50 K. V. A. and the other 75 K. V. A., are being installed, space being provided for two future units of equal capacity, the units being arranged with cylinder heads facing

each other, thereby making a large open space in the center for the desk of the operating engineer.

In the pump room are located the boiler feed pumps, open feed water heater, vacuum heating pumps, auxiliary feed water tank, vacuum return tank, with numerous traps, etc. All of the feed water to the boilers will be delivered through a V notch meter indicating the flow and also provided with a recording mechanism so that the total amount of water fed to the boilers for any period can be determined, making it possible to definitely know each day the amount of water evaporated per pound of coal, or the efficiency of the plant.



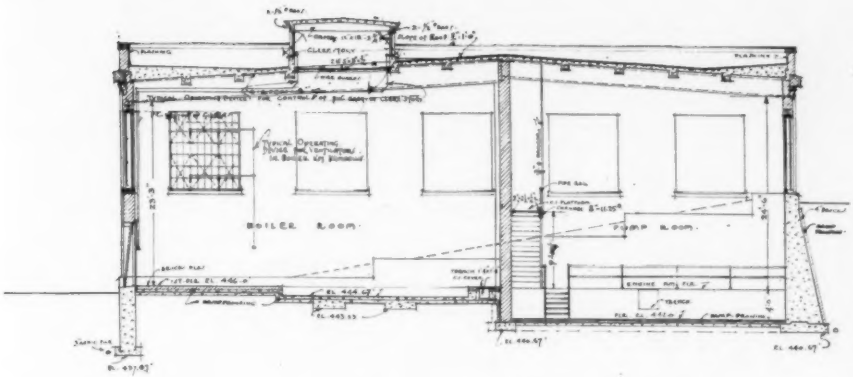
CHIMNEY DETAILS—CENTRAL HEATING AND LIGHTING PLANT, WINGDALE PRISON, NEW YORK

So as to fully utilize the exhaust steam from the engines during the summer and to properly control the temperature from one central point, a central hot water heating system was installed in the pump room with distributing mains to the various buildings for domestic hot water service, thereby placing same directly under the control of the chief engineer. This plant consists of two domestic hot water heaters, water tube type, each with a capacity of 5000 gallons per hour, together with a storage tank of 700 gallons. From the storage tank the domestic hot water is supplied to the buildings, from each of which is a small return circulating line, the circulation being kept up by two motor-driven centrifugal pumps located in the pump room.

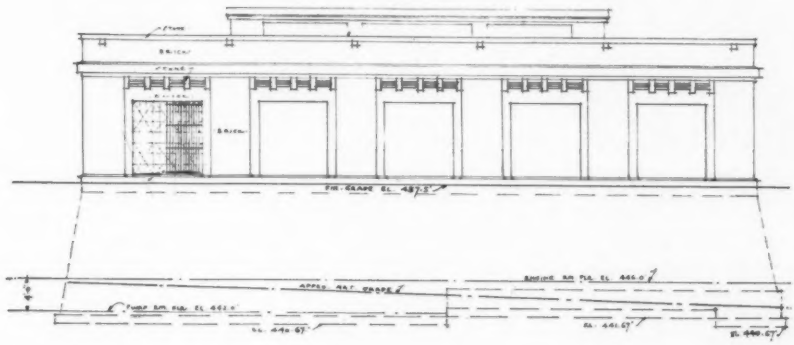
From the power house there is installed, underground, in tile conduit the following service lines: one low pressure heating main to utilize the exhaust steam from the engines; one vacuum return line; one medium pressure steam main for cooking and sterilizing purposes, which will be run at approximately 40 pounds; one medium pressure return line; one domestic hot water line and one domestic circulating line. Sufficient expansion chambers are installed along the above lines. At each building the domestic hot water and circulating lines are cross connected, and no circulating line is run inside the building as it is believed that there will be sufficient draw to keep the domestic hot water warm up to the fixtures without undue waste.

At this prison two types of cell blocks are being built, one known as an Interlocking Building, in which there are day and dormitory rooms on each floor with a certain number of outside cells. The day and dormitory rooms are to be heated by direct radiators and also to be furnished with forced ventilation. The outside cells are to be heated by forced hot air rising through vertical ducts and distributed in a horizontal air duct in front of the cells, with openings above each cell door. This has the advantage of eliminating all radiators in the cells, and also provides a good circulation of air.

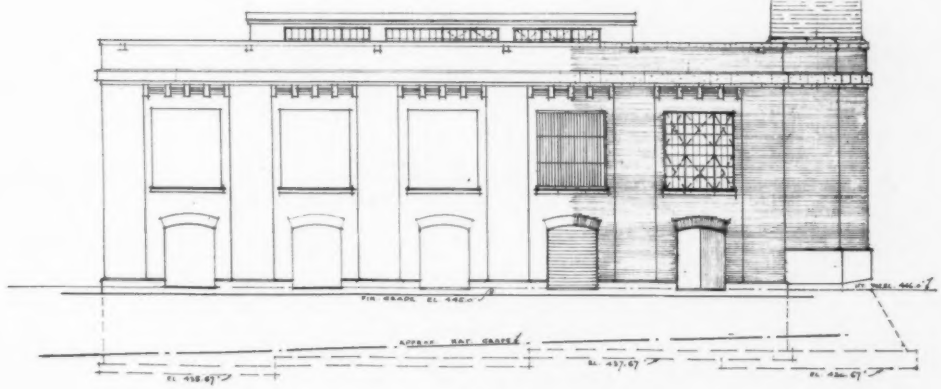
The inside cell block building is heated by direct radiators located along the outside walls and at the level of the lower tier of cells. From each cell, however, there is a vertical tile duct leading to a horizontal exhaust duct running the length of the attic, which duct is connected to a motor-driven



SECTION THRO. BOILER & PUMP RMS.



EAST ~ REAR ~ ELEVATION



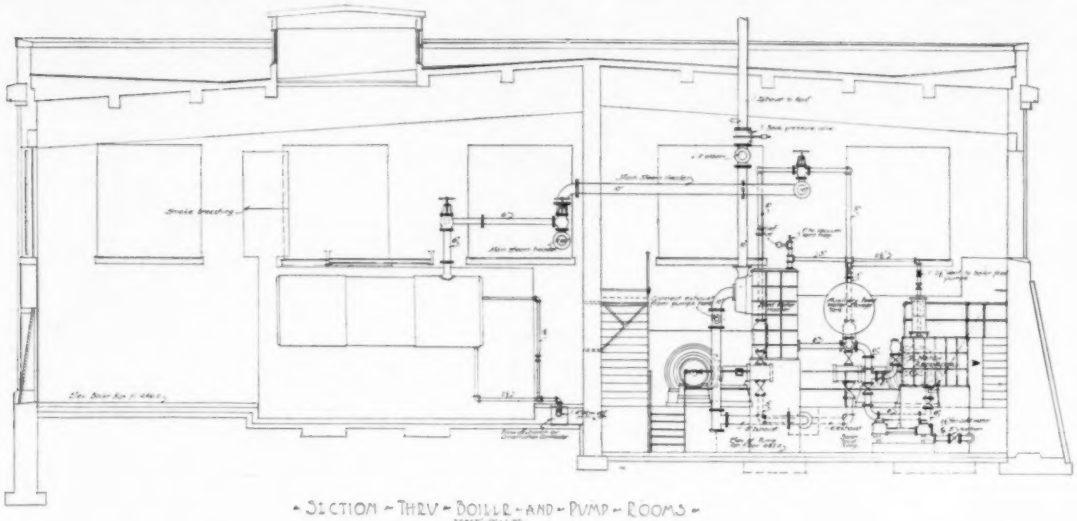
WEST ~ FRONT ~ ELEVATION

CENTRAL HEATING AND LIGHTING PLANT, WINGDALE PRISON, NEW YORK

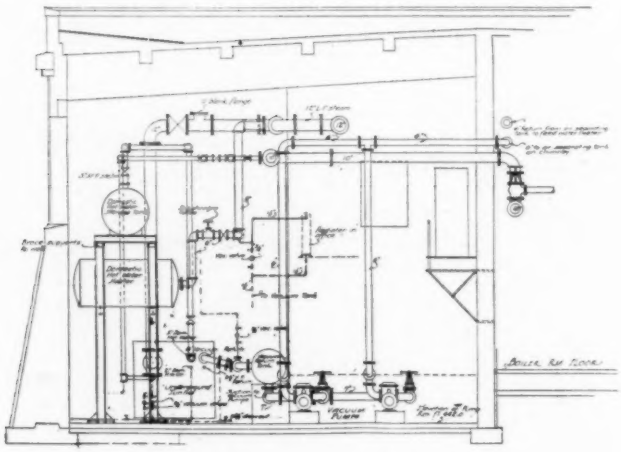
LEWIS F. PILCHER, *NEW YORK STATE ARCHITECT*

exhaust fan, thereby drawing fresh air from the space in front of the cell through the cell door into the cell, and exhausting from the cell in the above-mentioned flue. It can, therefore, be seen that the amount of air entering each cell is directly under the control of the employees of the prison.

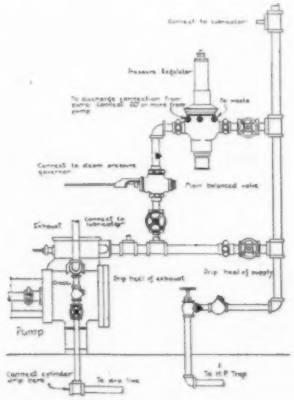
One of the unique features in the sanitary work building will be supplied with the usual toilet and locker rooms. In the basement of the interlocking building and cell block building are large shower rooms, tile walls, with sufficient shower heads running along two sides of the room, each side being controlled by a mixing valve under the direct control of the guard and near the entrance door.



- SECTION - THRU - BOILER - AND - PUMP - ROOMS -



- SECTION - THRU - PUMP - ROOM -



- DETAIL OF SPEED - AND - PRESSURE - REGULATOR

SECTIONS—CENTRAL HEATING AND LIGHTING PLANT—WINGDALE PRISON, NEW YORK

and conforming with modern practice is that each cell is provided with a separate toilet and lavatory with push button valve control, the valves being located in a V-shaped pipe chamber running vertically and located between adjacent cells so that one pipe riser serves two cells on each floor.

The day and dormitory rooms in the interlocking Considerable discussion arose whether it was necessary to have partitions between the shower heads, and it was decided that this was not advantageous to the proper administration of a prison.

The mess hall has been provided with three refrigerating rooms cooled by an isolated refrigeration plant, motor driven, located in the basement,

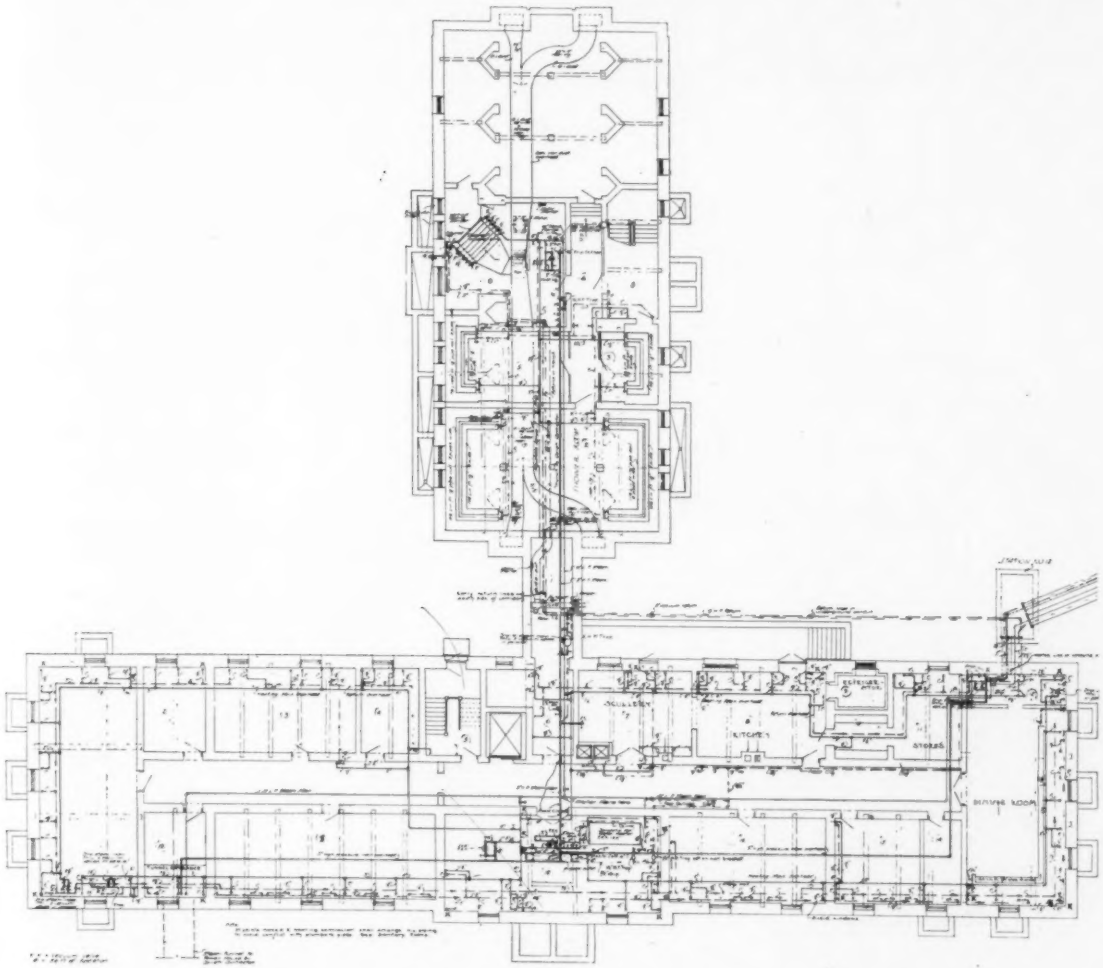
of sufficient capacity also to make a certain amount of cake ice.

All of the cooking will be done by steam as experience has demonstrated this to be the most satisfactory method in an institution of this nature.

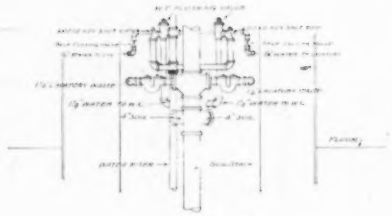
The main feature to be considered in the mechanical installation of a prison is that all equipment used must be simple, rugged and long-lived. It should also be taken into consideration that this class of building is generally constructed for over a hundred years' service and there is no reason why the type now being erected should not last longer. Therefore, all mechanical equipment should be of the best.

While it is not possible in an article such as this to describe in any great detail the features entering into the design and installation of the mechanical equipment of all the various prison buildings, it is felt that the matter presented is sufficient to convey the salient points to be considered.

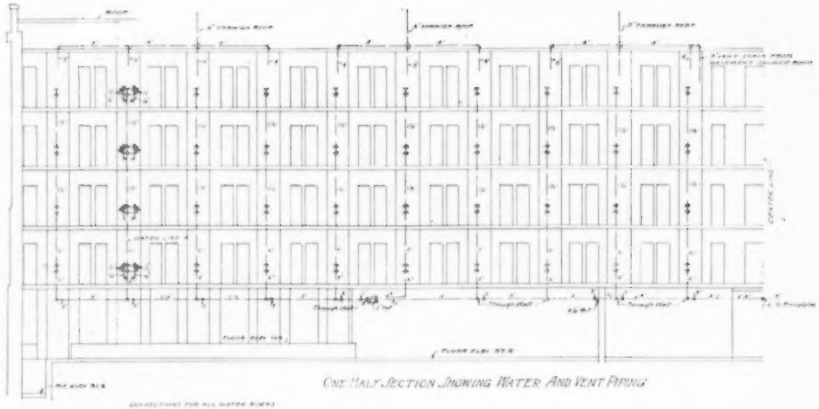
The drawings accompanying this article illustrate various phases of the heating, lighting and plumbing equipment of several of the buildings, and are worthy of careful study.



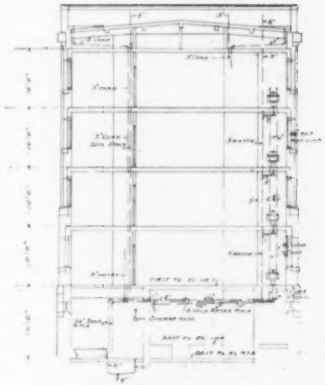
APPARATUS FLOOR—MECHANICAL EQUIPMENT, CLINIC BUILDING AND CELL BUILDING.
ONE BLOWER TO FURNISH FRESH AIR FOR 82 CELLS



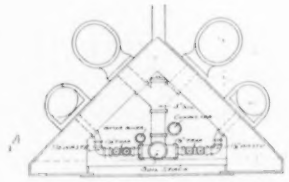
SECTION A-A



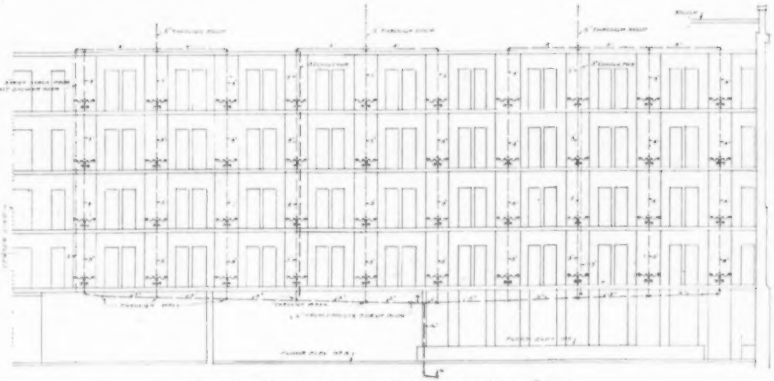
ONE HALF SECTION SHOWING WATER AND VENT PIPING



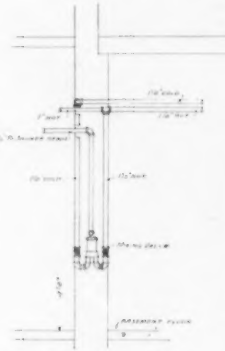
CROSS SECTION



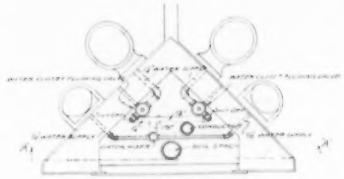
PLAN OF DRAINAGE SYSTEM



ONE HALF SECTION SHOWING DRAINAGE AND VENT PIPING



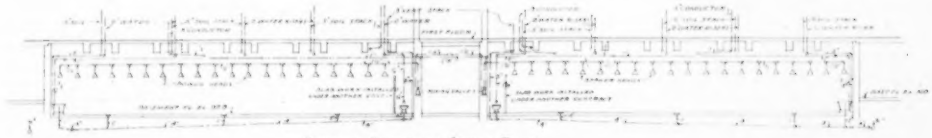
DETAILS OF WIRING VALVE



PLAN OF WATER SUPPLY

DETAILS OF ROUGHING IN FOR CELL FIXTURES

SCALE 3"=1'0"



SECTION BASEMENT SHOWER ROOM

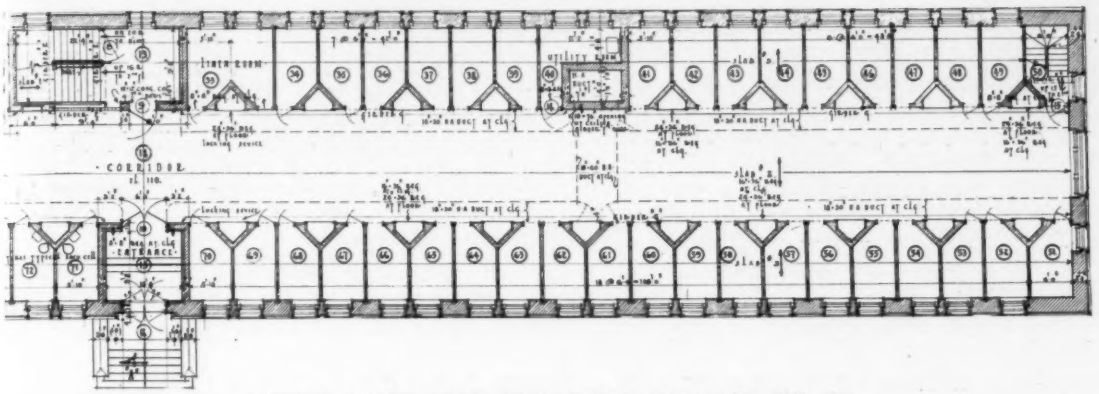
PLUMBING SECTION

SCALE 3/32"=1'0"

PLUMBING SECTIONS AND DETAILS—OUTSIDE CELL BUILDING, WINGDALE, NEW YORK

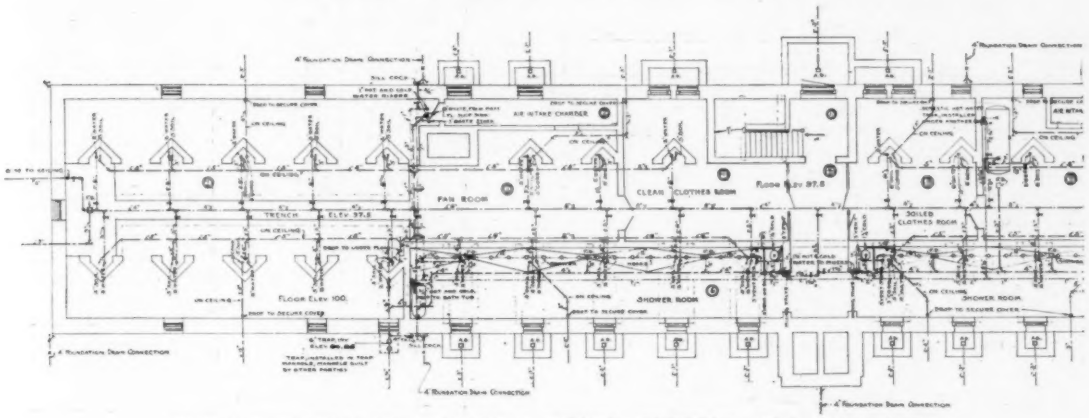
SHOWING ALSO FACILITIES FOR BATHING, ON LOWER FLOOR, 40 INMATES AT A TIME

LEWIS F. PILCHER, *NEW YORK STATE ARCHITECT*

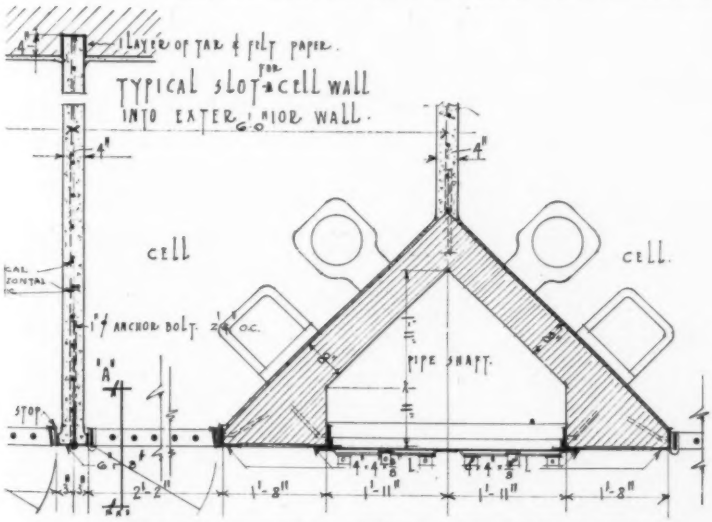


FIRST FLOOR PLAN—DETENTION BUILDING NO. 5

Showing detail of construction of cells. A reinforced concrete partition between each cell, brick exterior walls and brick pipe shaft wall. All windows are heavily barred.



SERVICE SYSTEM OF PLUMBING PIPING—OUTSIDE CELL BUILDING

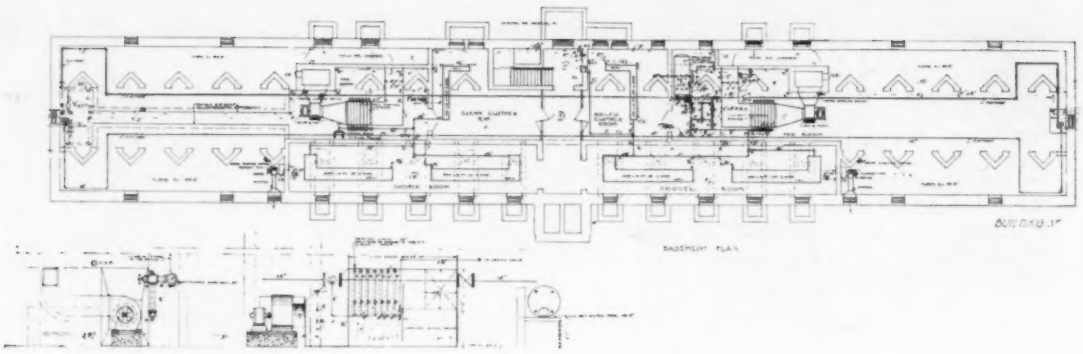


CELL PLUMBING FIXTURES—PIPING AND VALVES IN PIPE SHAFT ACCESSIBLE FROM CORRIDOR

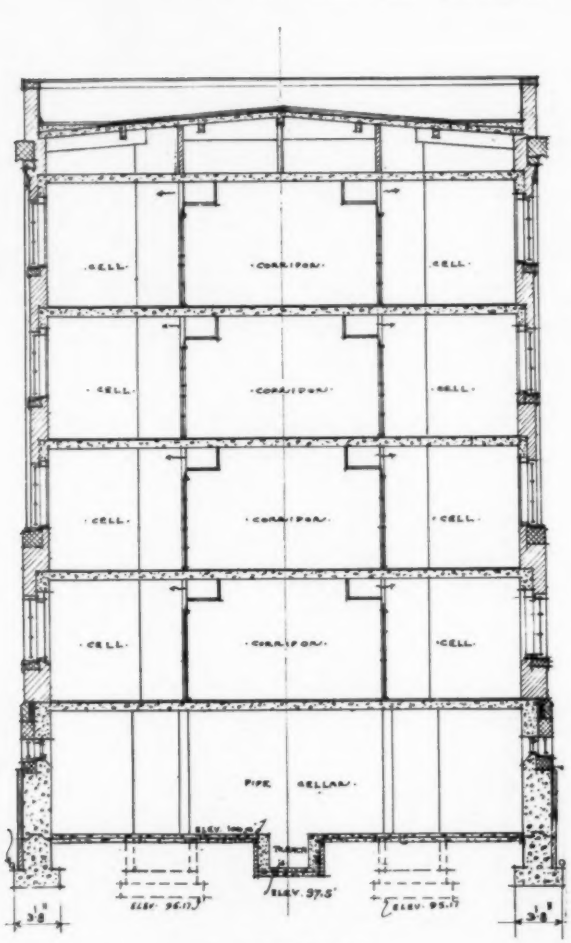
PLANS AND DETAILS

PRISON BUILDINGS
WINGDALE, NEW YORK

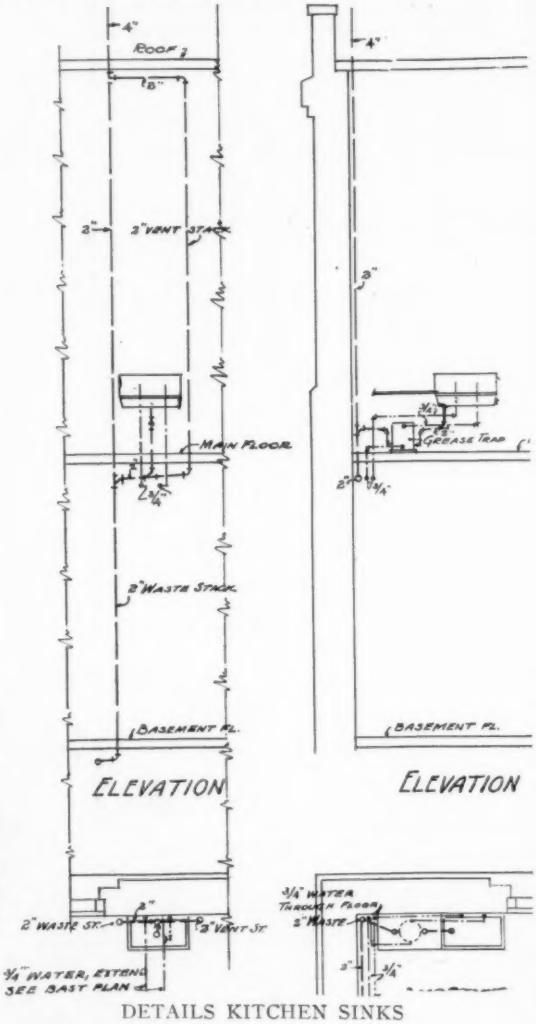
LEWIS F. PILCHER
NEW YORK STATE ARCHITECT



APPARATUS FLOOR—MECHANICAL EQUIPMENT, OUTSIDE CELL BUILDING
TWO BLOWERS TO FURNISH FRESH AIR FOR 286 CELLS



SECTION NO. 5
OUTSIDE CELL BUILDING
Fresh Air to Each Individual Cell



DETAILS KITCHEN SINKS

PRISON BUILDINGS, WINGDALE, NEW YORK
LEWIS F. PILCHER, *STATE ARCHITECT*

Brick Chimneys and Wall Shingles finished with Cabot's Old Virginia White
John Russell Pope, Architect, New York

Cabot's Old Virginia White

ON BRICKWORK

The soft, brilliant "whitewash white" effect of Old Virginia White is wonderfully appropriate for brickwork, giving the flavor and texture of age combined with the cool, clean freshness of new whitewash. Also for stucco and stone.

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STUDIOS: 147 AND 149 EAST 19TH STREET, NEW YORK

Architects are invited to view the important work now being executed in these studios, or to ask for photographs of completed work.

Late Quotations in Building Material Markets

(Price quotations now current on building materials and supplies as quoted by dealers and jobbers for delivery in New York, Chicago, San Francisco, Seattle, and Birmingham follow. The quotations set forth are placed before readers of THE AMERICAN ARCHITECT *to afford an accurate review of market conditions, rather than for use as a basis for actual purchase. They will not only provide knowledge of the exact state of the market as to items quoted but will also present a basis to judge conditions as affecting correlating materials.)*

	New York	Chicago	San Francisco	Seattle	Birmingham
BRICK					
Common	$30.45	$14.00	$15.00	$18.00	$22.75
Face brick	55.00 to 60.00	30.00 to 40.00	46.50	23.00	32.00 to 50.00
BURNED CLAY					
(Delivered on Job)					
Block partition:					
3 in., per sq. ft.	0.13	0.10	.....	0.10½	.....
4 in., per sq. ft.	0.15	0.11	.....	0.10	.....
Wall coping (single slant):					
8 in., per lin. ft.	0.16	0.14	.....	.....	.....
12 in., per ft.	0.26½	0.22	.....	.....	.....
18 in., per ft.	0.54	0.36	.....	.....	.....
(Corners and angles four times the price of one foot of coping the same size.					
CEMENT					
Per bbl. in 15-cent bags (rebate 60 cents per bbl. for bags)	3.40	3.25	3.63	$4.25	4.50
FINISHED IRON AND STEEL					
(Mill Shipments)					
Bar iron, refined grade	.....	.....	.....	.....	.....
Bar iron, double refined	.....	.....	.....	.....	.....
Soft Steel bars	2.62 to 4.27	.....	.....	.....	.....
Shapes	2.72 to 2.82	.....	.....	.....	.....
GLASS					
(Discounts from Manufacturer's Price Lists)					
Single strength, A quality, first three brackets	75%	77%	.....	.....	.....
Single strength, B quality	75%	77%	.....	83%	.....
Double strength, A quality	77%	79%	.....	83%	.....
Double strength, B quality	79%	79%	.....	.....	.....
GYPSUM					
Plaster Board:					
27x28x1	.....	.....	.....	0.36	.....
27x48x ½	0.45	.....	.....	.....	.....
32x36x ¼	0.28	0.20	.....	.....	.....
32x36x ⅜	0.29	0.21½	.....	0.36	.....
32x36x ½	0.35	.....	.....	.....	.....
Plaster blocks:					
2 in. solid, 12x30, per sq. ft.	0.13	.....	.....	.....	.....
3 in. hollow, 12x30, per sq. ft.	0.13	.....	.....	.....	.....
4 in. hollow, 12x30, per sq. ft.	0.14	.....	.....	.....	.....
6 in. hollow, 12x30, per sq. ft.	0.21¾	.....	.....	.....	.....
HOLLOW TILE					
2x 8x12 partitions, per 1,000 sq. ft	$98.80-$111.10	.....	75.00	.....	96.00
3x12x12 partitions, per 1,000 sq. ft	148.20-165.10	102.70	105.00	105.00	96.00
4x12x12 partitions, per 1,000 sq. ft	166.70-185.70	109.60	113.00	120.00	108.00
6x12x12 partitions, per 1,000 sq. ft	222.30-247.60	150.00	142.00	170.00	132.00
8x12x12 partitions, per 1,000 sq. ft	.....	205.30	208.00	230.00	192.00
10x12x12 partitions, per 1,000 sq. ft	.....	253.20	.....	.....	216.00
12x12x12 partitions, per 1,000 sq. ft	.....	294.30	.....	.....	.....
2x12x12 split furring, per 1,000 sq. ft	92.60-103.20	68.50	.....	.....	.....
LATH					
Eastern spruce, per thousand	20.00	16.00 to 18.00	18.00	14.50	10.00 to 18.00
No. 1 white pine, per thousand	18.00	16.00 to 18.00	18.00	.....	.....
No. 1 hemlock, per thousand	18.00	.....	18.00	.....	.....
No. 1 yellow pine, per thousand	18.00	16.00 to 18.00	18.00	.....	.....
LIME					
Common, 200 lb. bbls., per bbl.	3.80	1.60	.....	2.85	.....
Finishing, 300 lb. bbls., per bbl.	19.50	18.00	.....	3.25	.....
Hydrated, in paper bags, per ton	4.00	.....	.....	25.00	.....
LUMBER					
(Retail Prices per Thousand Delivered)					
Yellow pine, No. 1 boards, 1x6	80.00	75.00	.....	.....	.....
Yellow pine, B, and better flooring (plain)	130.00	125.00	.....	.....	.....
Douglas fir, 6x6 to 12x12	80.00	71.00	.....	36.50	.....
Oak, quartered, 1 in., F. A. S.	325.00	285.00	.....	.....	.....
Oak, plain, 1 in., F. A. S.	225.00	210.00	.....	.....	.....
Oak flooring, ⅛ quartered, white	220.00	295.00	.....	.....	.....
Maple, 1 in., F. A. S.	180.00	185.00	.....	.....	.....
Maple flooring, ⅛ clear	175.00	150.00	.....	.....	.....
Mahogany, 1 in., F. A. S.	.....	350.00	.....	.....	.....
Spruce, 10 in.	85.00	82.00	.....	.....	.....
Cypress, 1 in., F. A. S.	150.00	130.00	.....	.....	.....
METAL LATH					
Under 100 sq. yd., per sq. yd.	0.40	.....	.....	0.40	.....

DEPENDABILITY

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is the ideal cement for making mortar to be used in Pointing, Setting and Backing. Its non-staining quality is one of the reasons why Atlas-White is found so often — On the Job.

THE ATLAS PORTLAND CEMENT COMPANY

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Upon request we will promptly send to architects one or all of three books:— "Color Tones in Stucco," "Non-Staining Mortar for Pointing, Setting and Backing," "Cast Stone."

ATLAS WHITE

Late Quotations in Building Materials Markets—*Continued*

	New York	Chicago	San Francisco	Seattle	Birmingham
PIPE					
Cast iron:					
6 in. and heavier	$67.30	$71.80	.....	.....	.....
4 in.	70.30	74.80	.....	.....	.....
3 in.	.....	81.80	.....	.....	.....
(And $2 additional for Class A and gas pipe)					
(Discounts to jobbers for carload lots on the Pittsburgh basing card; freight rates from Pittsburgh to New York, and also from Pittsburgh to Chicago, in carloads, per 100 lbs., are 27c. An additional 5 per cent discount is allowed to large jobbing interests over those listed below.)					
	F. O. B. Pittsburgh	F. O. B. Chicago			
Wrought: BUTT WELD					
Steel:					
Black, ⅛ to 3 in....	47 to 54 %	38 to 45%	.....	.....	.....
Galv., ⅛ to 3 in....	20½ to 41½%	10.1 to 30.1%	.....	.....	.....
Iron:					
Black, ⅛ to 1½ in..	29½ to 34½%	11.9 to 22.6%	.....	.....	.....
Galv., ⅛ to 1½ in..	2½ to 23½%	39.9 to 4.6%	.....	.....	.....
LAP WELD					
Steel:					
Black, 2½ to 6 in..	50 %	41.1%	.....	.....	.....
Galv., 2½ to 6 in..	37½%	27.1%	.....	.....	.....
Iron.					
Black, 2½ to 6 in..	34½%	18%	.....	.....	.....
Galv., 2½ to 6 in.....	21½%	9.6%	.....	.....	.....
PLASTER					
Neat wall cement in 15-cent bags, per ton	23.50	19.00	18.50-20.00*	$22.50	22.00
Finishing plaster	25.00	19.50	19.50-21.00*	24.00	30.00
Lath mortar, in cloth bags, per ton	16.50	.....	.....	.....	.....
RADIATION					
Discount from list on standard heights	45%	41.6 to 43.1	.....	.....	.....
REINFORCING BARS					
High carbon steel from mill	48.50	.....	4.00	5.00	.....
Medium steel from mill	48.50	.....	4.00	5.00	4.25
ROOFING MATERIAL					
Tarred felt paper:					
No. 1—25 lbs. to 100 sq. ft., per ton	81.00*	90.00	.....	per cwt. 2.50	.....
No. 2—16 lbs. to 100 sq. ft., per ton	81.25*	90.00	.....	per cwt. 3.25	.....
No. 3—12 lbs. to 100 sq. ft. per ton	81.63	90.00	.....	per cwt. 3.35	.....
Rosin sized sheathing, per ton	75.00	.....	.....	*cwt. 105.00	.....
Corrugated roofing, galvanized, 2½ in. corrugation, over flat sheets, 30 cents per 100 lbs	0.30	.....	.....	.....	.....
SHINGLES					
Red cedar, 5 to 2, clear, per thousand	15.00	.....	16.00	.....	.....
White cedar, extra star, A star, per thousand	16.00	.....	17.00	.....	.....
SLATE ROOFING					
	F. O. B. Cars Quarry Station				
Pennsylvania:					
Best Bangor	$7.75 to $9.00	.....	.....	.....	.....
No. 1 Bangor Ribbon	6.75 to 7.00	.....	.....	.....	.....
Pen Argyl	6.50 to 7.25	.....	.....	.....	.....
Peach Bottom	10.50 to 12.50	.....	.....	.....	.....
No. 1 Chapman	6.25 to 7.25	.....	.....	.....	.....
Vermont:					
No. 1 Sea Green	5.00 to 8.50	.....	.....	.....	.....
Unfading Green	9.00 to 10.50	.....	.....	.....	.....
Red	12.00 to 20.00	.....	.....	.....	.....
Maine:					
Brownsville, U'f'g Black, No. 1	12.00	.....	.....	.....	.....
Slaters' felt, 30 lb. roll	0.92	.....	.....	.....	.....
Slaters' felt, 40 lb. roll	1.22	.....	.....	.....	.....
STRUCTURAL STEEL					
Beams and channel, 3 to 15 in. per lb	3.47	3.47	4.70	4.70 to 5.00	0.05½
Beams and channel, over 15 in., per lb	3.57	3.57	4.70	.....	0.05¾
Angles, 3 to 6 in	3.47	3.47	4.70	4.10	0.05
Zees and tees	3.57	3.47 to 3.52	.....	.....	.....
Steel bars, half extras, from mill	.....	.....	4.60	4.00	4.25
STUCCO					
In cloth, per ton (white, mixed)	22.50	19.50	.....	.....	.....
STUCCO BOARD					
Medium weight stucco board, plain, per thousand sq. ft.	42.50	45.00	.....	.....	.....
Medium weight stucco board, creosoted, per thousand sq. ft.	50.00	50.00	.....	.....	.....
Heavy weight stucco board, plain, per thousand sq. ft.	55.00	55.00	.....	.....	.....
Heavy weight stucco board, creosoted, per thousand sq. ft.	60.00	60.00	.....	.....	.....
Medium weight stucco board, plain, narrow key, per thousand sq. ft.	50.00	50.00	.....	.....	.....
Medium weight stucco board, narrow key, creosoted, per thousand sq. ft.	55.00	55.00	.....	.....	.....
Insulating board, heavy felt background, per thousand sq. ft.	50.00	50.00	.....	.....	.....
SHEATHING BOARD					
Heavy weight sheathing board, per thousand sq. ft.	50.00	50.00	.....	.....	.....
Medium weight sheathing board, per thousand sq. ft.	46.00	45.00	.....	.....	.....
Stucco or plaster board, sheathing board and insulating board are in rolls containing one sheet 25 ft. long and 4 ft. wide (100 sq. ft.)					
WALL BOARD					
Wall board, shipped any length, 4 ft. wide, per thousand	45.00	50.00	.....	46.00	.....
Packed flat in cars if ordered in less than car lots. Add $5.00 per thousand ft. for crating.					